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PREFACE

This small study, originally conceived as a contribution to the 1989 Vedic Conference at Harvard, is about an aspect of Aryan culture in the Rigvedic period. The main means to investigate that aspect is a study of the language, and particularly of the foreign words in the Rigveda. Common objections are that we cannot even identify most of those foreign languages, now died out, or that we have no Dravidian or Munda documents from that time. For that very reason a different strategy, more adapted to that situation, is called for.

Foreign words are traditionally the step-children of linguistic research, as far as it deals with etymologies. Yet, if it is realized that in many cases an etymology is a *cura posterior*, these wallflowers, when treated with some loving care, can provide a lot of information and insight for anyone who starts on etymological explorations.

This study draws to a large extent conclusions from *Indo-Aryan* material discussed over the past fifty years in publications that may no longer be easily accessible. Some sparse references have sometimes been added when a word has previously been treated at greater length or in a wider context. It must be stressed that the examples quoted are purely illustrative and that this study does not claim to be more than a first sketchy programme for future research.

Two monumental works nowadays prepare the way for anyone who has to work with New Indo-Aryan and Dravidian material, viz. Turner's *Comparative Dictionary of Indo-Aryan Languages* (with a consistent Pan-Indic approach) and Burrow and Emeneau's *Dravidian Etymological Dictionary*. How much I am indebted to these works will be apparent from every page.

This study was prompted by the steadily deepening gulf between Indologists and Indo-Europeanists, as a result of developments in Indian linguistics in the latter half of this century. It should be realized that Wackernagel's admirable *Altindische Grammatik* I (1896) is now almost a century old and that some parts in it are urgently in need of a thorough revision. It is hoped that this small study may contribute to bridging the gulf and that it may lead to the recognition that studies which, on the threshold of the 21st century, ignore the methods and results of a Pan-Indic approach and continue to operate with essentially

19th century theories inevitably will appear unrealistic and dated.

This booklet is not only intended for the specialist who is (more or less) at home in Indo-European, Dravidian, Munda and the Vedic *śākhās*. Although I could not always avoid discussions of a more technical character, I have striven to write also for the half-way initiated reader. The usual abbreviations, therefore, have in general been avoided and the use made of them is deliberately inconsistent.

For the purpose of this study it did not seem necessary to indicate the gender of the stems in *-ā* and *-ī*. Those in *-a* are masculine (or unknown), unless marked as neuter.

I am fully aware of the inconsistencies and technical imperfections of this study, which I was, *aetatis causa*, unable to remedy. I only hope that readers will not over these deficiencies lose sight of the basic problems.

My sincere thanks are due to Dr. A. Lubotsky, without whose help and initiative this study would never have appeared in this form[1].

[1] In view of the general character of this study I here follow for Tamil the transcription of the *Tamil Lexicon* and write accordingly *l̲* for *r̲* (but *ṟ* in Proto-Dravidian reconstructions) and for Santali the spelling of Bodding's *Santal Dictionary* instead of Pinnow's.

CONTENTS

I INTRODUCTION 1

II LINGUISTIC AND CULTURAL EVIDENCE

1. LINGUISTIC SUBSTRATUM 9
2. FOREIGN CULTURAL INFLUENCE 14
   a) Names of Agricultural Implements, Cultivation of the Soil, Food, Ornaments, etc. 14
   b) Traces of Foreign Elements in the Field of Religion 15
   c) Music, Dancing, etc. 19
3. SOCIOLOGICAL EVIDENCE 20

III TRACES OF FOREIGN LINGUISTIC SYSTEMS

1. PHONOLOGY I: ACCENT 22
2. PHONOLOGY II: VOWELS 22
3. PHONOLOGY III: CONSONANTS 24
   a) *ś* : *Ø* 24
   b) *s* and the 'ruki' Law 25
   c) *ṣ* after *a* 25
   d) The Retroflexes *ṭ(h)*, *ḍ(h)* and *ṇ* 27
   e) *ḍ* > *r* 30
   f) *ḍ* : *d* 33
   g) *v* : *b* 33
   h) Surds and Sonants 34
   i) Nasalization of (Initial) Consonants ... 36
   j) Interchange of Initial *k* and *Ø* 38
4. MORPHOLOGY I: PREFIXES 39
5. MORPHOLOGY II: INFIXES 44
6. MORPHOLOGY III: SUFFIXES 45
7. MORPHOLOGY IV: GERUNDS 47
8. SYNTAX: *iti* 47

IV PERCEPTION AND ADAPTATION OF FOREIGN PHONEMES AND CLUSTERS

1. VOWELS 48
2. *ḍ* > *r* AND *ḍ* : *d* 48
3. SURDS, SONANTS AND ASPIRATES 49
4. GEMINATES 51
   a) General Remarks 51
   b) *kk* 54
   c) *cc*, *jj* 59
   d) *tt*, *dd*, *ṭṭ* 59

e) *pp* 60
f) *mm* 62
g) *ll* 65
h) The Vedic Evidence 67
i) Excursus: post-Rigvedic *ḥk* and *ḥp* 69
5. THE 'INTRUSIVE' *r* (*ṛ*) 70
a) General remarks 70
b) *rṣ* 70
c) *dr* for *ḍ*, etc. 71
d) *rd*/*ṛd* and *rt* for *ḍ*, *ṭ* 72
e) *CVrCVṭ*, *CVrCVṇ* 74
f) *CrV(CV)ḍ*, *CrV(CV)ṇ* 74
6. *aṇ* AND *ṛṇ* AND 'INTRUSIVE' *ṛ* BEFORE *ṇ* 79
a) *-aṇ-*/*-ṛṇ-* 79
b) 'Intrusive' *ṛ* 82
7. DISSIMILATION 85
V THE FOREIGN ELEMENTS IN THE RIGVEDIC VOCABULARY 89
VI EPILOGUE AND CONCLUSION 94
VII REFERENCES 97
VIII INDEX OF SANSKRIT WORDS 106
IX ABBREVIATED TITLES OF SANSKRIT WORKS 115

I. INTRODUCTION

1. As is well known, no consensus has yet been reached about the problem of foreign elements and their influence in Rigvedic society. Taking up the subject again after more than thirty years I cannot avoid sometimes referring to earlier publications from the fourties and fifties. Our main tool for studying possible contacts between the Rigvedic 'Aryans' and the 'natives' is a linguistic one, viz. the study of the Rigvedic language. It should, however, be stressed from the outset that etymology is of no direct importance in these studies. It may be repeated that it is possible "to collect the words, the foreign origin of which seems probable on morphological or phonetic grounds, even though a convincing etymological explanation cannot be given for many of them." Indeed, we should not "suppose all foreign Rigvedic words to be explainable from either Dravidian or Munda. Many, indeed, may derive from different but unknown sources." Therefore, "the chief aim of the notes is *not* the etymological explanation of the foreign words (which no one who is aware of the present state of these studies will expect) but rather a critical discussion of the morphological or phonetic problems connected with these words" (K. 1955: 137, 140).

This is a discussion of facts and their possible interpretation. A critical account of all the secondary literature that has appeared in the past decades was not intended as it would have given this study an entirely different character. It must be stressed, however, that this silence was not prompted by a depreciation of what others have written, but merely by the conviction that only by strictly sticking to my own line of argument can I hope to persuade others to reconsider their views on the moot point of the 'Aryans' versus non-Aryans in the Rigveda. (The quotation marks are intentional, as our real problem is not the non-Aryans but what the term 'Aryans', if one chooses to use it, actually signifies.)

In this connection I may first clarify my present position with regard to the earlier publications. They owed their origin to what seemed to me, as an Indo-Europeanist, an obvious fact, viz. that a not inconsiderable part of the Sanskrit vocabulary, even from the earliest periods, cannot possibly be of Indo-European origin. I still think that the efforts then made by some

to draw attention to this forgotten chapter in the history of Indo-Aryan were justified in principle; but it is also clear that those first reconnaissances in a *terra incognita* could not (in any case, did not) avoid some of the pitfalls which the explorer here finds on his path. The Dravidian and Munda material available at the time was still insufficient and the internal reconstruction of Munda (which was later to be taken up systematically by Heinz-Jürgen Pinnow) had still been neglected. What had been done in this field had in some respects led to false conclusions. The deficiencies were, indeed, apparent. Premature etymological guesses may have caused some scholars to overlook the fact that the words concerned, whatever their etymology, had little chance of being of Indo-European origin.

If the attempts then made by a very few have, notwithstanding the premature aspects, contributed at all to an awareness that the exclusively Indo-European approach was unrealistic, this result is now only perceptible in the U.S.A. In Europe this aspect seems, some fifty years later, to be almost entirely forgotten. A case in point is the 19th century theory dating back to August Friedrich Pott, that Rigvedic *-aṭ-* is a Prakritism and stands for *-ṛt-*. Some thirty years ago, in a review of the *Nachträge* to Wackernagel's *Altindische Grammatik* I, it was pointed out that, apart from the laryngeal theory, the only parts in the reviewer's opinion that were in need of a thorough revision were pp. 167-171 on *-aṭ-* and pp. 192-195 on *-aṇ-* (K. 1959b: 165). Since the *communis opinio* continued to operate with such Prakritisms in the RV, whereas on the other side it was maintained that the traces of 'vulgar' Sanskrit in the RV did not warrant the conclusion that a *Prakrit* had already developed, a chaotic situation was stated to exist, which urgently called for 'eine prinzipielle Auseinandersetzung' in order to arrive at a new consensus. No progress has since been made. Looking back it seems possible that one of the two camps (if one would like to use that term) in fact consisted of a single person, but then, in the 'choc des opinions' the number of adherents is not decisive. It should not be forgotten that the two theories by which 19th century scholars, at the first stage of development of PIE studies, tried to account for *Rigvedic -aṭ-* and *-aṇ-*, are entirely parallel. Since a simple glance at the Rigvedic evidence of *-aṭ-* (see p. 27) is sufficient to recognize that this is a collection of curiosities, it also shows on what weak foundation the theory of Rigvedic *-aṇ-* from *-ṛṇ-* (see p. 79) rests.

2. There is, indeed, a strong resistance to admitting foreign influence on Vedic India. Rational arguments, however, are seldom put forward and it is difficult to grasp what the real motives are. A few points have incidentally been mentioned, but if one tries to visualize the real background of this opposition, one must inevitably have recourse to reconstructions and, sometimes, hypotheses.

a. To some extent, the unwillingness to reconsider these problems may have been due to a certain traditionalism among Sanskritists and Indo-Europeanists. Although since the decipherment of Hittite it is generally agreed that a large portion of the vocabulary of an Indo-European language can be of foreign origin, the 19th century attitude towards Sanskrit as the oldest and most authentic IE language must have made it difficult to admit the occurrence of foreign elements in this case. In Europe, indeed, and particularly in Germany (the Berlin chair of Franz Bopp!), the study of Sanskrit has, from its very first beginnings, been tied up with the comparative study of the Indo-European languages, so much so that for a long time Sanskrit used to be taught in many Universities as part of 'Comparative Grammar'. Sanskrit was the central language in these studies, it was *the* Indo-European language *par excellence*. In this perspective there was no place for the innovations that already formed part of the Rigvedic language.

It must be acknowledged, however, that this attitude, although predominant in the 19th century, was not a universal one, for substratum theories to account for the retroflex phonemes in Sanskrit also arose as early as the middle of that century (Pott 1833: 88f.!).

b. Secondly, there is the 19th century prejudice about 'northern' Aryans who were confronted on Indian soil with black barbarians. Clearly, some western philologists of that time identified themselves more or less consciously with their Aryan 'cognates' (for the latter also spoke an Indo-European language and were therefore supposed to belong to the same 'Aryan race'). Even then, however, warnings against this attitude were not lacking. Hillebrandt, when 36 years old, wrote (1889: 338): "Man hat verschiedentlich sich bemüht, den arischen Inder als besonders gesittet darzustellen und das was an ihm uns anstössig erscheint, als einen Einfluss unarischer Stämme hingestellt, mit denen er in Berührung kam. Man tut diesen Aborigern wohl manchmal recht Unrecht." Still, echoes of the idea of an ethnic

contrast can still be heard in some modern studies, such as Deshpande's (1979) who (in spite of clear statements to the contrary, see K. 1967: 86, 87, 96, 97), again deals with this problem as if the Aryan society was entirely homogeneous. His picture of the 'Aryans' is, I am afraid, incorrect in a double respect. On the one hand, he misinterprets the priestly hymns (which ignore the existence of lower strata in the Rigvedic society) as evidence for that society as a whole. The absence of any such reference, however, does not justify the inference that these strata did not exist. For the linguistic evidence to the contrary see, e.g., von Hinüber 1986: 22. On the other hand, he sometimes argues as if the 'Aryans' were living in a closed compartment, separated from the 'Dravidians'. No doubt, the Aryans had to fight against certain non-Aryan (as well as Aryan!) groups, which was in a way 'legitimized' and put in a cosmic context by a reference to the mythical prototype, viz. Indra's fight against Vṛtra. Cf. VI.33.3 *tváṃ tấm̃ indrobháyām̃ amítrān, dấsā vṛtrấṇy ấryā ca śūra / vádhīr...* 'O Indra, thou hast slain both those (classes of) enemies, the Dāsic powers of resistance and the Aryan ones, O hero'. The inference, however, that the speakers of Indo-Aryan fostered a "strong hatred" against non-Sanskrit-speakers (Deshpande 1979: 253f., which echoes "der glühende Hass" of 100 years earlier, see Zimmer 1879: 112) finds no support in our text.

c. Also Thieme's statement (1955: 437 = 1971: 705) that "the bearers of the sacred language are obviously and professedly eager to keep their speech pure and unadulterated" is only valid to the extent that it refers to "the educated speech of the Brahmins, socially separated from the popular speech" (Witzel 1989: 107f.). Inevitably, the "sacred language" was predominantly used in a non-literary form in situations of everyday life that were anything but sacred. Finally, Renou (1957: 10) still maintained that no social intercourse of any importance between Aryans and non-Aryans took place at that time: "On n'a pas relevé d'influence autochtone, sur la langue du RV., en matière de morphologie et de syntaxe: ceci montre que les Âryens à cette époque ne s'étaient mélangés que dans une mesure fort limitée à la population dont ils occupaient le territoire." As will be argued below, the assumptions on which his conclusion was based, were incorrect. See also p. 21.

d. There is further the typical approach of the *pur sang* etymologists for whom the whole problem narrows down to the

question: Has an etymology been found? If the word concerned is of IE origin, it is in principle possible to find one. If not, this may sometimes be suggested, if one has good luck, and particularly, if the word has been taken from Dravidian. Since, however, Indo-Aryan appears to have also borrowed in the Rigvedic period from other languages, which have disappeared in the three thousand years that separate us from that time, it is not reasonable to expect that for the majority of the words that give the impression of being non-IE an etymology can be given. It is for that reason that here a different approach is followed. However, also a methodological problem is involved. If a certain language is an Indo-European one, and if the source of the foreign elements is unknown, it may seem an obvious procedure to explain as many words as possible from Proto-Indo-European; the residue will then be the foreign contribution. This method is not, however, so simple and straightforward as it may seem. More often than not an etymology is only an attempt at an explanation. Those that are immediately evident are in a minority. Often the large number or the quality of the etymologies proposed for a certain word in an IE language only demonstrates that there is no way to explain that word satisfactorily from Indo-European; in other words, that, after some 150 years of etymologizing, there is some reason to suspect that the word concerned is *not* of Indo-European origin. The availability of an IE etymology does not necessarily prove very much. Since this is often insufficiently realized, proving the occurrence of foreign words by way of elimination (as suggested above) is not sufficient, as it may lead to such statements as Tedesco's (1952: 223): "but since they now have a clear Indo-Aryan etymology, they are native and the borrowing was on the part of Dravidian." Such misapprehensions are not rare (K. 1955: 138 n.1, 1971: 126).

Regardless of whether an etymology can be proposed or not, I would still maintain, on the basis of general characteristics, the foreign origin of most of the words sorted out as such in early publications. The present study will not, accordingly, be about etymologies but about some criteria for distinguishing non-Aryan words (K. 1955: 140, 1967: 86f.) and about their frequency *in the Rigveda*.

3. The idea of a hatred fostered against the non-Aryans was based on those RV passages that refer to *Ārya* as distinct from *Dāsa*, but the distinction was an ideological one, based on

a dichotomy of the universe. 'Aryans' were in general those who maintained the world order by means of sacrifices and gifts. In this dual world these 'Aryans' were on the side of light vs. darkness, of Devas vs. Asuras, etc. 'Aryan' referred to a cultural community, including some Dāsas. Those who believed that a definite ethnic barrier separated the 'Aryans' from the surrounding non-Aryan peoples disregarded some well-known facts that contradict this assumption. One of them can be found in VIII.46.32, where a priest (*vípra-*) is said to have received a hundred camels from the *dāsá- Balbūthá- Tárukṣa-*. Cf. VedInd. II: 64: "If this were the case, it would be a clear piece of evidence for the establishment of friendly relations between the Āryans and the Dāsas" and ibid. 38 on the name of one of Indra's favourites: "The name Pramaganda seems un-Āryan" (see p. 43). A clear case is also I.100,17, where the names of the sons of *Vṛṣāgir* are enumerated: *Ṛjrāśva-*, *Ambarīṣa-*, *Sahádeva-*, *Bháyamāna-* and *Surādhas-*. All the names are clearly Indo-Aryan except *Ambarīṣa-*. The phoneme /b/ ranks it among the many foreign words with *b* in the Rigveda (AiGr. I: 184), and the element *-īṣa-*, apparently a suffix, occurs in "einige meist etymologisch dunkle Wörter" (including class. *ambarīṣa-* 'frying pan', see AiGr. II/2: 462). It was apparently quite possible to give a non-Aryan name to a son born in a family in which Indo-Aryan names were the rule.

The case of *Ambarīṣa-* is not isolated. There is a whole group of persons who were on the side of the Aryan society but whose names must, on morphological grounds, be considered non-Aryan. The following list (in which the frequency of instances from book VIII should be noted) does not claim to be exhaustive. See also Muir 1874: 387, Ludwig 1878: 145-167, 204-213, Zimmer 1879: 100-138, VedInd. (*passim*).

(2) *Bṛbú-* was a bounteous patron (VI.45.31 and 33 *Bṛbúṁ sahasradātamam*), and so was (3) *Kuruṅgá-*, king of the Turváśa dynasty (VIII.4.19). Other patrons were (4) *Maśarśāra-* (I.122.15), (5) *Tiríndira-* (VIII.6.46) and possibly (6) *Śirímbiṭha-* (X.155.1; but according to the Anukramaṇī *Śirímbiṭha-* and *Irimbiṭhi-* were poets. See however also below, p. 18). In VI.63.9, (7) *Púraya-* and (8) *Śāṇḍá-* are mentioned along with such 'Aryan' lords and patrons as *Sumīḷhá-*, *Peruká-* and *Purupánthā-*, and in VIII.46.32 the priest wins a hundred camels from the (9) *dāsá- Balbūthá- Tárukṣa-*, see above. As far as I can see, these cases do not allow any other conclusion but that in the Rigvedic

society people of different ethnic groups participated in Vedic culture by acting as patrons at festivals and sacrifices.

(10) *Ikṣvākú-* was an Aryan prince (X.60.4) and the prince (?) (11) *Kavā́ṣa-*, who is defeated by Indra (VII.18.12), bears the same name as the priest *Kavaṣa- Ailūṣa-*, son of a *dāsī* in AitBr. II.19.1, KauṣBr. XII.3.14, who was allegedly the composer of RV X.30-34 (see K. 1968: 79f.). Favourites of Indra were (12) *Iṭánt-* (X.171.1), (13) *Píṭhīnas-* (VI.26.6), (14) *Prámaganda-* (III.53.14), (15) *Turvíti-* (I^4 II^1 IV^1), (16) *Rúma-* (VIII.4.2) and (17) *Rúśama-* ($VIII^3$). Among the names of kings and sages one further meets with (18) *Kútsa-*, a hero who sometimes aids Indra, and (19) *Múdgala-* (X.102.5, 9). Just as in other cases, the name of his wife (*Mudgalā́nī-*) has been derived from his own according to the rules of Sanskrit, which points to the conclusion that they were fully accepted by 'Aryan' circles. A few names seem to point to totemism: (20) *Agástya-*, name of a mythic sage (Śaun. Paipp. once *Agásti-*, cf. class. *agasti-* 'Agasti grandiflora') and (21) *Māndāryá-* (I.165.15), name of a singer (*kārú-*; cf. class. *mandāra-* 'Erythrina indica'). Cf. also *Ikṣvākú-* (X.60.4: class. *ikṣvāku-* 'pumpkin') and *Śígru-* (VII.18.19: class. *śigru-* 'Moringa pterygosperma').

Some family names are (22) *Káṇva-/Kāṇvá-* (particularly in book VIII; note *Práskaṇva-*, a descendant of Káṇva-; see below, p. 43); (23) *Kalí-* (I^1 $VIII^1$ X^1), a singer and his descendants, (24) *Kuśiká-*, father of Viśvāmitra, and in the Vālakhilya hymns (25) *Śíṣṭa-*, *Śírṣṭa-* or *Śírṣṭra-* (VIII.53.4).

Names of peoples are (26) *Gandhā́ri-*, (27) *Cedí-*, (28) *Pūrú-*, (29) *Turváśa-*, the latter closely allied with the (30) *Sṛ́ñjaya-*, (31) *Yádu-* (VedInd. I: 315) and (32) *Tṛ́tsu-* (which Grassmann took for an Indo-Aryan name). The (33) *Uśīnára-* (Brāhmaṇas+) are attested in *Uśīnárāṇī-* (X.59.10, cf. *Mudgalā́nī-* and *Purukútsānī-*). An Indo-Aryan origin of *Uśīnára-* (EWAia I: 235) is unlikely both because of the accent (cf. *viśvā́nara-*, *śikṣānará-*; *sūnára-* is of course a particular case) and because *uśī-* cannot satisfactorily be explained from Indo-Aryan. For some other names an Indo-Aryan etymology could possibly be proposed because they lack the clear characteristics of a foreign linguistic system: (34) *Bhalānás-* (VII.18.7, but note *Píṭhīnas-*, p. 46), (35) *Álina-* (ibid.) and possibly *Ánu-* (non-Aryan according to Grassmann, but cf. V.31.4 and I.108.8 and VedInd.). The list is not meant to be exhaustive, nor has a detailed discussion of

each name been intended.

These are the names of some individuals, families and peoples that had won access to the higher strata of Rigvedic society. It can only be the tip of the iceberg. Statistics, therefore, would make little sense. On details there can be difference of opinion. The main problem is often, which of the 'non-Aryans' were on the side of the 'Aryans', and which were not. On the whole, however, the foreign character of the names will not be questioned. This allows us to consider, right at the outset, the question of what exactly the term 'Aryan' signifies in this connection. The conclusion that can be drawn from the preceding pages is that the Rigvedic society consisted of several different ethnic components, who all participated in the same cultural life. I fully agree with Southworth's words (1974: 204f.): "the equation of IA speakers with 'Aryan' (i.e. the original intruders and their direct descendants) is not supported by historical evidence."

Aryan culture, however, also comprised the agricultural sector. It is not necessary to enter here into the much debated question of whether the speakers of Indo-Aryan were pre-eminently pastoral nomads. In any case, in an Indo-European perspective their agricultural vocabulary is aberrant (see Makkay 1988: 125) and to a large extent it seems to consist of borrowings from native Indian languages. See below, p. 14 and note for later times Masica 1979: 55-151. The agricultural population may have consisted of more or less Aryanized peasants of an originally indigenous race. If this picture is correct, borrowings can be expected to have occurred in many sectors of Vedic life.

II. LINGUISTIC AND CULTURAL EVIDENCE

1. LINGUISTIC SUBSTRATUM

The problem of foreign words in the Rigveda cannot be dissociated from the arguments which have been brought forward in favour of a linguistic substratum that has changed Indo-Aryan in several respects in a *prehistoric* period. This interpretation of some linguistic facts is based on the following points:

1. Phonology: phonemicization of allophones of /t(h)/, /d(h)/ and /n/ as /ṭ(h)/, /ḍ(h)/ and /ṇ/ denoted as such in the *textus receptus*. There are no reasons to think this was a post-Rigvedic process (p. 12).
2. Morphology: the introduction of the verbal category of gerunds (absolutives, verbal participles), e.g. *hatvā́* for older *jaghanvā́n* (K. 1967: 95-97, Tikkanen 1987).
3. Syntax: a change in the use of *íti* in accordance with a foreign pattern (K. 1967: 91-95).

Other points have been discussed by Emeneau, but since the problem under discussion is foreign influence on the *Rigvedic* language, these points may suffice.

The correctness of these conclusions has been disputed by Hock 1975a, 1975b, 1982 and Deshpande 1979. In the context of this study I must confine myself to a few remarks. Hock 1975a relies entirely on Burrow 1955 and ignores what general (German) handbooks teach about PIE **ḱs* > Iranian *š*, Skt. *kṣ* (AiGr. I: 134), *tā́ṣṭi* (ibid. 230), *mādbhíḥ* (AiGr. III: 250f, 289). He appears not to have read two pages which he criticizes (K. 1967: 111f.), bearing on emphatic substitutes for endangered phonemes, esp. modern Greek *s*, *ss*, *ts* (see also Malkiel 1962: 271) and to misinterpret the term 'Indo-European' as though referring to a typological notion. Burrow's theory of **ẓbh* > *ḍbh* is refuted by *dorbhyā́m* (AiGr. III: 248, 293). A nominative without *s*, assumed for *víṭ* (Hock 1975b: 221), does not agree with *vā́k* : Latin *vōx*, etc. As for *íti*, the assumption that Avestan *ūitī* originally could also stand *after* the quotation (Hock 1982: 69) lacks any foundation. The study of absolutives in Indo-European (Hock 1975a: 105) disregards the sole relevant fact, viz. that *only* in Sanskrit the participle *jaghanvā́n* has been replaced by the new formation *hatvā́*. Greek *anchímolon* is irrelevant in this respect.

* * *

As for the gerunds, however, mention must be made of a more sophisticated view taken by Stephanie Jamison (1989: 459-61) in her review of Tikkanen, *The Sanskrit Gerund*. While accepting that "demonstrable non-Aryan influence on the Sanskrit gerund is a later phenomenon", she writes (p. 461): "Although substratum influence cannot be ruled out (and indeed surely existed to some degree) in any development in the Sanskrit language, the positive case for it here seems extremely weak, especially since one less committed to the substrate explanation can easily see mechanisms whereby the gerund could have independently acquired the value it has when it enters history." The theoretical dilemma that here appears was described many years ago in the words: "Can we entirely exclude the theoretical possibility that a development started as a fully autonomous process, only to become, at a much later time, a factor in the context of a general Pan-Indic evolution?" The answer then given was that only when such a phenomenon can be correlated with similar interpretations of other, apparently contemporary, phenomena, it can be considered sufficiently well-founded. Jamison, in her review, had no reason to enter into this aspect.

Commitment to any theory can here be ignored. If, indeed, such a commitment to a theory would take the place of willingness to weigh the evidence, this would be the end of a rational approach where arguments count. The point is the mechanics referred to. She points to English *With John's arrival, the party really got going* (*/It was only with John's arrival that* ...) and comments: "Though the "with" in such sentences may originally have expressed simultaneity, it surely is interpreted/ interpretable as expressing (immediate) anteriority." This remark, however interesting, leaves us with some questions. That an instrumental can acquire a gerund value is well known (cf. Latin *cantando* 'by singing' : Italian *cantando* 'singing') but such gerunds as a rule denote simultaneity. That is what the new *'Cobuild' English Language Dictionary* (col. 1677a sub 12) records for English *with*. The point, as I see it, is not whether in certain contexts *with...* is (also) interpretable as expressing anteriority but whether it can be shown to have somewhere developed into the syntactical means of expressing *exclusively* anteriority, as in the Rigveda, where exceptions to this rule are "extremely rare" (Tikkanen 1987: 121, cf. 64, 278). The case of the Rigvedic gerunds is characterized by the following points: 1) When entering India, the Indo-Aryans had only the perf. ptc. for this purpose, e.g. *jaghanvā́n* = Avestan *jaγnvå*. 2) In the RV the

use of *jaghanvấn* is still maintained (I[5] II[1] III[2] IV[4] V[1] VI[1] X[3]), but concurrently there appear *hatvấ*, *hatvī́* (I[2] II[4] III[1], *-ấya* X[2]), also referring to an *anterior* action (Delbrück 1888: 405). 3) The use of the gerunds (rare in the old books IV, VI, VII) is still developing in the literary language and several variant forms are used that were soon to fall into disuse, but there is no trace of an older meaning of simultaneity or immediate anteriority (Tikkanen 1987: 121, 278, etc.). 4) On the other hand, they presuppose a paradigmatical *ablaut* and change of accent (AiGr. II/2: 655), which show that they must date from a remote prehistoric stage of development of Proto-Indo-Aryan. (As for the 'laryngeal shortening' of *-ā* in *-tyā* and *-yā*, its chronology is less clear.) 5) Although they must, accordingly, have arisen long before in popular speech, their distribution over the ten books of the Rigveda points to the conclusion that the new formations were only gradually gaining access to the hieratic language of the Rigvedic poets. Since the data of Delbrück 1874: 228f. appear to be untrustworthy, I here give the total numbers of the various formations for each maṇḍala according to Tikkanen (1987: 82): I[35] II[19] III[16] IV[6] V[6] VI[6] VII[5] VIII[12] IX[5] X[67]. 6) At the time the new formations arose, substratum influence must have made itself felt in other domains of the language.

General theories about possible developments miss, I am afraid, the main point, which is the *specific character* of the historical process in Proto-Indo-Aryan: only after penetrating into India the Indo-Aryans developed, by the side of the inherited procedure, a new one to denote an anterior process or action. Why was there *then* a need for a new construction that was the homologue of the one that existed in Dravidian (where a sentence structure without a gerund is inconceivable)?

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So much for the gerunds. In contrast to Hock's articles, Deshpande's long study 'Genesis of Ṛgvedic retroflexion' (1979: 235-315) calls for a more detailed discussion. It is not necessary to dwell on its obvious weak points: at times Deshpande seems not to be aware of what the issue is: cf., e.g. "How could the Ṛgvedic poets expressing these attitudes be Sanskrit-speaking Dravidians..." (D. 254) or "the totality of evidence provided by Kuiper for pre-Ṛgvedic 'convergence' is, in my opinion, still insufficient to prove that the original *Ṛgveda* was composed by Sanskrit-speaking Dravidians" (D. 258: but who has ever thought of proving this thesis?). It is not always clear what exactly he is

about to prove (e.g. D. 256); there are what I regard as misrepresentations (D. 255, 258, etc.) and misinterpretations (D. 249, 254f., 280f., 291, etc.) and there is in general a misconception about what evidence can be expected from a text like the Rigveda, and what is excluded (D. 258f., 292, etc.). The main point, however, is that Deshpande accepts for the Rigveda contacts with non-Aryans, loanwords, a non-Aryan myth (D. 254, 258), that he "entirely agree[s] with Emeneau that retroflexes in the existing *Ṛgveda* can and must be explained by the Dravidianization of the Aryan language" (D. 257) and even assumes that "by the time of the *Brāhmaṇa* period, the speakers of the Sanskrit language were not pure Vedic Aryans but were already a mixed people" (D. 297). The only point on which he disagrees is the date of the introduction of the new set of phonemes, which in his opinion is post-Rigvedic. It is certainly legitimate to ask to what extent the *textus receptus* (apart from the well-known interventions of the "redactors") is identical with the original text as composed by the poets. There is a general consensus on certain peculiarities of the text being of later date (see, e.g., Witzel 1989: 167f.). To prove that at a certain time there was much uncertainty as to whether to pronounce *ṇa* or *na*, *ṣa* or *sa*, Deshpande heavily leans upon Ait.Ār. III.2.6. His theory is, indeed, that this uncertainty arose at the time when the new phonemes were introduced into Sanskrit. As far as I can see, the text proves just the reverse. It stresses the superiority of the Saṁhitā-text and illustrates and confirms it by a myth that relates how Prajāpati once upon a time fell asunder but put himself together again (*ātmānaṁ samadadhāt*) by means of the metres. His act constitutes the mythic prototype and the essence of the *Saṁhitā*. Of this *Saṁhitā*, *ṇa* is the strength and *ṣa* the breath and Self. What then follows, viz. *sa yo haitau ṇakāraṣakārau anusaṁhitam ṛco veda sabalāṁ saprāṇāṁ saṁhitāṁ vedā 'yuṣyam iti vidyāt*, can hardly mean "He who knows the verses in the *Saṁhitā* and the letters *ṇ* and *ṣ*, he knows the *Saṁhitā* with its breath and its strength..." (D. 247, cf. Keith 1909: 255). Whether the text, as edited by Keith, is correct, is open to doubt: the double *veda* and the absence of *ca*, when compared with the parallel text of Śāṅkh.Ār. VIII.11, are awkward. This text reads: *tau vā etau ṇakāraṣakārau vidvān anusaṁhitam ṛco 'dhīyītā 'yuṣyam iti vidyāt* "Knowing these *ṇa* and *ṣa* [that is, their mystic character of strength and breath], he should recite the verses according to the Saṁhitā-text (and) should know that that gives

a long life." The text of the Ait.Ār., as it stands, expresses a similar idea as follows: "He who knows [the mystic character of] these syllables *ṇa* and *ṣa* (and) the verses according to the Saṁhitā-text, he (or: and?) knows the Saṁhitā-text that is full of strength and breath. He should know that that gives a long life."

The text goes on to say *sa yadi vicikitset saṇakāraṁ bravāṇī3m̃ aṇakārā3m̃ iti, saṇakāram eva brūyāt* "Should he (or: somebody) be in doubt whether to recite the text with *ṇa* or with *na*, he should recite it with *ṇa*." The stress laid on the Saṁhitā only makes sense in opposition to the Padapāṭha. Cases where there is a contrast between the texts (see also D. 248) are, e.g., I.38.6, III.55.2, X.59.4 *mó ṣú ṇaḥ* (*ṇo*), where the Padapāṭha has *mó íti sú naḥ*. The sandhi is characteristic of the Rigveda. In later texts there is a tendency to eliminate it, even in the old mantras (AiGr. I: 191, 237, Renou 1952: 110f.). Cf. RV I.163.2, TS 4.6.7.1 *índra eṇam prathamó ádhy atiṣṭhat* as against KS. 40.6 (139,15) *indra enam* ... (like the Padapāṭha of the RV). This tendency may have caused some uncertainty in later times as to whether to recite with *ṇa* or *na*, but *ṇa* is doubtless the older sandhi form. With the phonemicization of *ṇa* and *ṣa* it has nothing to do. The text goes on to say *te yad vayam anusaṁhitam ṛco 'dhīmahe, yac ca māṇḍūkeyīyam adhyāyaṁ prabrūmas, tena no ṇakāraṣakārā upāptāv iti ha smāha hrasvo māṇḍūkeyaḥ*, in Deshpande's translation "...*if* we say [i.e. follow in recitation] the teaching of Māṇḍūkeya, *then* the letters *ṇa* and *ṣa* are obtained for us" (D. 249, cf. Keith 1909: 256). From these words Deshpande infers that if Māṇḍūkeya was *not* followed, "these sounds were not obtained in the *Ṛgveda*." What the author actually means to say is rather: "Hrasva Māṇḍūkeya said: In that we recite the verses according to the Saṁhitā-text and in that we teach the way of reciting of the Māṇḍūkeyas, thereby (*tena*) we have obtained *ṇa* and *ṣa* (strength and breath)." In other words: "The modern way of ignoring the original sandhi makes the text powerless. Only if we stick to the old traditional sandhi, the text has vigour and gives a long life." What the text refers to is the well-known importance of "die korrekte und damit allein magisch wirksame Rezitation vedischer Texte" (von Hinüber 1989: 18).

The question of whether the 'original' RV text had the category of retroflexes is a legitimate one but Deshpande has failed to bring forward any evidence in support of his thesis that the retroflexes are post-Rigvedic. There is no reason to doubt

that they were already a separate set of phonemes at the time when the hymns (or the majority of them) were composed. It might also be asked how such *hapax legomena* as X.28.8 *kṛ́pīṭa-* n., VI.54.7 *kévaṭa-* and VII.39.2 (VS) *bī́riṭa-* could have crept into the text if the poets themselves had *not* pronounced them in that way.

The conclusion based on the Rigvedic evidence that the retroflexes must have penetrated into Indo-Aryan in a prehistoric ('pre-Vedic') period would consequently seem to stand unchallenged.

2. FOREIGN CULTURAL INFLUENCES

a) Names of Agricultural Implements, Cultivation of the Soil, Food, Ornaments, etc.

The glosses are only rough approximations; see K. 1955: 149-165, Southworth 1979: 204:

(1) *kúṭa-* 'house (?)'; (2) *kulā́ya-* n. 'nest' (in *kulāyín-*, etc.); (3) *kávandha-* 'barrel, cask' (and *kabandhín-*); (4) *kalā́śa-* 'pot, water-jar'; (5) *kuṇḍá-* 'pot, vessel'; (6) *kā́śi-* 'a handful'; (7) *gárta-* 'seat of a war-chariot'; (8) *ū́rdara-* 'a measure for holding grain'; (9) *apūpá-* 'cake' (otherwise EWAia I: 87); (10) *odaná-* 'rice dish'; (11) *karambhá-* 'a kind of gruel'; (12) *kīlā́la-* 'some kind of milk product'; (13) *píṇḍa-* n. 'lump of flesh'; (14) *ulū́khala-* 'mortar'; (15) *kārotará-* 'sieve, drainer'; (16) *camrí-* f. 'ladle'; (17) *índu-* 'drop'; (18) *camū́-* 'cup'; (19) *kóśa-* 'cask, bucket'; (20) *opaśá-* 'crown'; (21) *kaparda-* 'braided hair' (in *cátuṣkaparda-*); (22) *kurī́ra-* n. 'hair-net'; (23) *kṛ́śana-* n. 'pearl'; (24) *khādí-* 'bracelet, ring'; (25) *khṛ́gala-* 'armour or crutch?'; (26) *śikhā-* (in *viśikhá-* 'bald'); (27) *kīnā́śa-*, *kīnā́ra-* 'ploughman'; (28) *khilyá-* 'waste piece of land'; (29) *lā́ṅgala-* n. 'plough'; (30) *sī́ra-* n. 'id.'; (31) *phā́la-* 'plough share'; (32) *tílvila-* 'fertile, rich'; (33) *bī́ja-* n. 'seed'; (34) *píppala-* n. 'berry of the ficus religiosa'; (35) *mū́la-* n. 'root'; (36) *khála-* 'threshing floor'; (37) *ṛbī́sa-* n. 'volcanic cleft'; (38) *kartá-* 'hole, cavity'; (39) *kāṭá-* 'depth, hole'; (40) *kévaṭa-* 'cave, pit'; (41) *bíla-* n. 'cleft, hollow'; (42) *kṛ́pīṭa-* n. 'thicket or firewood'; (43) *śakaṭī́-* 'cart'; (44) *āṇí-* 'linch-pin'; (45) *vā́ṇī-* 'swingle tree'; (46) *kúliśa-* 'axe'; (47) *kū́ṭa-* n. 'mallet'; (48) *bílma-* n. 'slip, chip', etc. See further K. 1955: 161f.

These words testify to a strong foreign impact in almost every aspect of everyday life of an agrarian population (K. 1955: 185). There must have been a high degree of acculturation, whereby an (originally) non-Aryan agrarian population was more or less integrated into a society of a predominantly different character.

In 1936 Wilhelm Brandenstein concluded from the fact that the Indo-Iranian branch had not taken part in common PIE semantic developments in the field of agricultural terminology that the Indo-Iranians must have lost contact with the main body of PIE speakers at a time when agriculture had not yet developed among them. When the Aryans entered India, accordingly, they would still have been pastoral nomads. Nowadays, however, the lexical difference is explained by "the polycentric origin of the IE agricultural knowledge from two or three earlier food producing centres by cultural - and partly also by lexical - differences" (Makkay 1988: 125; see also Masica 1979: 57). The process of borrowing has continued over the centuries. In modern Hindi 80 percent of the terminology is, as Masica's fundamental study has made clear, of foreign origin: "The surprising thing is that *only a small proportion of the remainder is either Dravidian or Austroasiatic*, even by generous estimates" (1979: 131). See also Schlerath 1989 and below, p. 21.

b) Traces of Foreign Elements in the Field of Religion

A full discussion of all well-known problems, such as a possible non-Aryan background of Rudra, or of the *múni-* (X.136.4,5), is not intended. It must be stressed, however, that, as far as can be seen at this moment, none of these foreign elements has caused a *fundamental* change in the Rigvedic set of inherited religious notions and beliefs. We can be reasonably sure, I think, that there was annually a period of cosmic and social crisis and unrest, at the end of the year and before the beginning of the new one. It was a period of contests, when the sacrifices had been interrupted for a while and it is natural that a god who had the Indo-Aryan name of Rudra and who took no part in the sacrifices, should be the god of this dangerous interval. It is also natural that he should later get the euphemistic name Śiva, 'the Benevolent One', and that Indra, the only god who operated during this time, should be accompanied by a crowd of *Rudras* (= *Maruts*), whose representatives on earth were the *Vrātyas* (Falk 1986). It is *possible* that before or after

the Rigvedic period this Rudra was amalgamated with a native god, but, if so, there are no indications to show that this has materially changed the general picture.

On the other hand, it cannot be denied that even in the field of religion there are, as early as the Rigveda, clear traces of an influx of non-Aryan beliefs. Whereas it would be unwise to overestimate their importance because, as far as one case is concerned, this is only a marginal phenomenon, it would be equally wrong not to acknowledge that it reveals a certain amount of symbiosis, at least on a lower level of religious practices. It is not so much a case of 'borrowing' of other peoples' beliefs as rather an echo of a foreign religion being incidentally audible in the circles of the Rigvedic *ṛṣis*, be it in an adapted form. The case in point is a non-Aryan myth about an archer god who cleaves a mountain with his arrow, kills the boar Emuṣa and gains access to the cooked rice-milk (*odaná-*). The myth, grafted upon the Indra-Vṛtra-myth, is mainly found in the eighth maṇḍala (VIII.(63.9?); 69.14; 77.6-11; 96.2; I.61.7). In VIII.96.2 there is only a short reference to the myth. Our main source is VIII.77, whose author is said to be Kuruśruti Kāṇva. More incidental references occur in VIII.69.14 (author Priyamedha, see verses 8 and 18) and in I.61.7 (author Nodhas Gotama, see 61.16; 62.13). The *Priyamedhas* and *Gotamas* were closely related to the *Káṇvas* (see Oldenberg 1888a = 1967: 582f., 588). It is a reasonable assumption, therefore, that the myth was introduced into the Rigvedic mythology by the *Káṇvas*, whose non-Aryan origin is probable for several reasons (see below and note the name *Práskaṇva*, p. 43). Although marginal, the myth was not ephemeral. In Yajurvedic circles it was well known and from the Kauśika Sūtra it is apparent that in later times certain magical practices were based on this myth. This squares particularly well with the fact that the *Káṇvas* were professional sorcerers (Hoffmann 1940 = 1975: 25ff.). The name *Káṇva-*, however, can hardly be explained from **kṛṇvá-*, since a phonetic development of *ṛṇ* to *aṇ* does not occur in the Rigveda (see p. 80). On the other hand, in the period of the Brāhmaṇas and Sūtras the Káṇvas were sometimes put on a level with non-brahmins (*abrāhmaṇa-*) or with brahmins not versed in the Veda (*aśrotriya-*); see KS 28.4 (158,3), KapKS 44 (43).4 (260,4/304.7). For the term *abrāhmaṇa-* note AB II.19.1, where the 'non-Aryan' Kavaṣa Ailūṣa is characterized as an alien in the words *dāsyāḥ putraḥ kitavo 'brāhmaṇaḥ*. Still, as early as the oldest historical period (see Oldenberg 1888 = 1967: 588)

the Kāṇvas must have been called in from an indigenous tribe as sorcerers and must have brought this particular myth with them. The myth gave, indeed, a legitimation to their magical practices, which were no doubt considered reiterations of the god's primordial act. This incorporation must have taken place early enough for their being (almost) fully Aryanized, trained in the traditional craft of composing hymns, and canonized, in the course of time, as Vedic *ṛṣi*s, whose family collections of hymns (VIII.1-66, I.36-50) were received as parts of the sacred 'Aryan' tradition (albeit as a kind of afterthought). Note, however, their relations to the dynasties of the *Turvášas* and *Yádus* and to king *Kuruṅgá-* (Oldenberg 589).

On the other hand, not all Kāṇvas seem to have aspired to membership of the Aryan society. Those who stayed behind were naturally feared as dangerous sorcerers, as is documented by the well-known hymn Śaun. II.25.3-5. Here the Kāṇvas are described as 'blood-drinking' (*asṛkpā́van-*), 'embryo-eating' (*garbhādá-*) and 'effacers of life' (*jīvitayópana-*). See also Paipp. 4.13.4,6; 7.11.6) and Hoffmann 25f. It may also be meaningful that in the RV a Kāṇva is described as *śyāvá-* 'dark brown' (X.31.11; *śyā́va-* I.117.8 as substantive?) and even as *kṛṣṇá-* 'black' (X.31.11), which is inevitably reminiscent of the *tvácaṁ kṛṣṇā́m* 'the black skin' which Indra made subject to Manu (I.130.8). The Kāṇvas may have been characterized by a dark skin but the nature of the texts excludes a strict proof. Hoffmann 16 rightly pointed to the large number of *hapax legomena* with retroflexes in book VIII (see K. 1967: 84 n.18, 86 n.26). It is an additional argument pointing to a foreign origin of the Kāṇvas. It has long been known that the eighth book of the Rigveda (part of which is, along with I.36-50, the Kāṇva book) stands apart and is different from the family books proper (II-VII).

In the context of this study the main importance of this myth lies in the fact that it allows us to draw some general conclusions from it in regard of the relations between 'Aryans' and non-Aryans. This, however, (apart from manifest shortcomings in the linguistic interpretation of the evidence) may have been the very reason why this case has almost universally been ignored. As Gurov 1987: 38 remarks, in the past 40 years "The possibility of borrowed mythological subjects appearing in the Rigveda ... has up to the present day virtually not been taken in consideration." Can the consequences of accepting it have been unwelcome? As Renou wrote on a postcard, dated August 29, 1950: "Cette hypothèse que semblent confirmer tous

les faits linguistiques, *n'est pas en effet facile à écarter* encore qu'il doive s'agir d'une chose, j'imagine, plutôt exceptionnelle dans le Ṛgveda" (italics mine, K.). It was a fair evaluation and the myth *was*, no doubt, an exception but it nevertheless allowed a reconstruction (as proposed above) of the way it had found acceptance in the venerable ancient monument of Aryan religion.

On the other hand, it was presented in 1950 as 'An Austro-Asiatic Myth in the Rigveda', which was premature or just incorrect. Neither the Rigvedic words *emuṣá-* and *bundá-*, nor Yajurvedic *dālbhūṣī-* and *drumbhūlí-* are (despite Burrow) unambiguous as to its origin (see pp. 25, 26).

A parallel with the Káṇvas called in for magical practices can possibly be found in X.155.1, a charm against the witch Sadanvā: *śírimbiṭhasya sátvabhis tébhiṣ ṭvā cātayāmasi* 'With these valiant warriors (attendants) of Śirímbiṭha we frighten you away.' If *sátvabhiḥ* somehow refers to magical practices (as Sāyaṇa suggests), Śirímbiṭha would be the name of an indigenous sorcerer, whose aid the Aryans had called in to scare away a local evil spirit. The nature of Śirímbiṭha is not, however, unequivocally clear from the context.

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The second instance, to which this brief account will be limited, is the mythical figure of Agástya (AV Agásti-). His case is noticeably different. In the Rigveda his name occurs, apart from a few stray references (VII.33.10, X.60.6) only in the eighth and first maṇḍalas (VIII.5.26 and I.117.11, 170.3, 179.6, 180.8, 184.5). In later times, however, he was to be more firmly rooted in the 'Aryan' tradition than the archer god. It need hardly be pointed out that the myth of Agástya itself (with such particular traits as Agástya and Lópāmudrā, I.179.4) cannot stem from the Proto-Indo-Iranian culture. That the name *Agásti-* is non-Aryan and (particularly in light of the parallel cases, see above) probably points to totemism, is another argument indicating a foreign origin. Incidentally, the circumstance that the plant name *agásti-* (from Dravidian, DEDR 5) is not *attested* in Sanskrit literature until a comparatively late date is no counter-argument, since such plant names (unless there is a special occasion to mention them, e.g. in Atharvavedic charms) as a rule only occur in technical works of the classical literature (Suśruta, Bhāvaprakāśa, the *kośas*, etc.). What Agástya has in common with the Káṇvas is the fact that in Vedic times his figure was not fully 'Aryanized' (in the sense of 'incorporated

into the North-Indian tradition'). Note JB 2.220 (Caland 1919: 183) *tasmād v agastayo bahirdhe 'va kurupāñcālebhyaḥ* 'therefore the descendants of Agastya live outside, as it were, of (the country of) the Kurus and Pañcālas.' Later tradition associated Agastya particularly with South (Dravidian) India but the Tamil tradition depicts him as coming from the North to South India (Shulman 1980: 6-8). However, how far can this have been a means of 'legalizing' South Indian culture as derived from the Aryan North and how far is this "southward migration" also attested in the Sanskrit epics (Shulman 1980: 155)?

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Since it is not the object of this study to discuss exhaustively all traces of foreign influence, these two cases may suffice to illustrate the non-Aryan impact even in the field of religion. Only in passing attention may be drawn to the problem of the *Paṇi*s. Hillebrandt 1927: 2, 1929: 237, 239 and Hanns-Peter Schmidt 1968: 209ff. have shown that they, too, were not primarily demons but non-Aryan adversaries. Whereas Hillebrandt identified them with the *Parnoi*, Gurov 1987: 34 argues that they were a Dravidian tribe. He points to *Pani* and *Paniek* in the mythology of the Raj Gonds of Adilabad and proposes Dravidian etymologies for *Paṇí-*, *bekanā́ṭa-*, etc.

c) Music, Dancing, etc.

A brief, not exhaustive, list of some terms may serve as an introduction: (1) *āghāṭí-* 'sound of cymbals'; (2) *karkarī́-* 'a kind of lute'; (3) *gárgara-* 'a lute or drum?'; (4) *dundubhí-* 'drum'; (5) *nāḷī́-* 'flute, pipe'; (6) *píṅgā-* 'a musical instrument' (? VedInd. I: 524, 'Sehne' Geldner); (7) *bákura-* 'wind instrument'; (8) *vāṇá-*, *vā́ṇī-* 'music, voice'; (9) *sasarparí-* 'war trumpet'. Another instance which testifies to a foreign cultural influence, is *āṅgūṣá-* 'song of praise'. The word must have been in common use, as it occurs in almost all the family books proper (I^6 III^1 IV^1 V^1 VI^1 VII^2 IX^1). A variant **aṅgoṣa-*, attested in SV *aṅgoṣín-*, excludes an Indo-Aryan origin. A word taken from a foreign culture was accordingly used in Vedic ritual. This is not surprising, since in later Vedic texts members of the Aryan society were interdicted from dancing and singing. Sten Konow once observed (1925: 345) that for these arts the Aryans must have strongly relied on the 'Kolarians' (= Munda tribes), and the list of Bharata's sons who acted in the mythical first dramatic performance (Bhāratīya Nāṭyaśāstra 1.26-39) con-

sists for the greater part of names of indigenous tribes. Also the *kuśīlavas*, 'actors' of the classical literature, may have been related to the Yajurvedic *śailūṣá-* (also 'actor' in classical Sanskrit, see Charpentier 1920: 122 n.2; K. 1968: 77ff.). This cultural pattern can be traced back to the Rigveda, as is apparent from the names of two 'singers', viz. the *vípra- Kalí-* (I^1 X^1) and the *kārú- Māndāryá-* (I.165.15 *gír māndāryásya mānyásya kāróḥ*). The circumstance that the latter's name has been regularly formed from **Mandāra-* (not attested in the Rigveda) shows that his family had already gained an established position in the Rigvedic society. See above for the parallel cases of *Mudgalānī-*, *Purukútsānī-* and *Uśīnārāṇī-*. If *kīstásaḥ* (I.127.7, VI.67.10) means 'singers' (Grassmann), it would belong here; but others render it by 'Lobsänger, Dichter' (PW), 'poet' (VedInd.). That also the Rigvedic word for dancing or jumping, viz. *krīḍati*, and the hapax *kīrín-* (probably = *pra-krīḷín-* 'dancing') are borrowings will be argued below (p. 76).

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As an incidental remark, although it does not strictly refer to the Rigvedic period, mention may be made of such names as *Irimbiṭhi- Kāṇva-*, the alleged composer of VIII.16-18, and *Kavaṣa- Ailūṣa-*, the author of X.30-34, which are found in the Sarvānukramaṇī. They represent a post-Saṁhitā tradition. The latter was known in circles of Rigvedins as the son of a *dāsī*, but they are particularly interesting because the author of the Sarvānukramaṇī, wherever he may have found the name *Irimbiṭhi* (not known from elsewhere but doubtless connected with RV *Śirímbiṭha-*), apparently had no qualms about ranking among the Vedic *ṛṣis* a man with such an exotic name, which may well be neither Dravidian, nor Munda. See further K. 1950: 19 n.1.

3. SOCIOLOGICAL EVIDENCE

For non-Aryan names of persons, families and 'tribes' who obviously belonged to the Rigvedic society, took part in social life and were recognized as members of the group, see above (p. 6). In this connection it may be observed that Southworth's conclusion (1974: 218, 222, 14) that social integration took place "at the highest social level" is contradicted by the evidence. The model of the gerunds must, in view of the ablaut in the root element, have been created in a remote prehistoric past but they were only gradually gaining access among the poets of the

Rigveda (p. 11). This would seem to allow but one conclusion, viz. that they had arisen among lower social circles of bilinguals, who were in a steady contact with speakers of Dravidian and other non-Aryan languages (K. 1967: 96). The use of non-Aryan agricultural terms (p. 14) is instructive. Jules Bloch's judgment (1934: 3), penetrating as usual, was much closer to the reality: "dans la campagne des champs irrigués par des puits et des canaux sont la preuve d'une installation stable et de l'adaptation au sol. Mais quelle part prenaient les diverses couches de la population au travail agricole, quel degré d'intimité le contact entre Aryens et indigènes supposait-il? C'est ce qu'on ignore totalement. En tout cas les chefs portent assez souvent des noms à consonances barbares pour qu'on puisse admettre déjà l'existence de mélanges *jusque dans la noblesse*" (italics mine). Note the contrast with Renou 1957 (p. 4).

III. TRACES OF FOREIGN LINGUISTIC SYSTEMS

So far as can be seen at this moment, the foreign words in the Rigveda stem from different sources: Old Dravidian (which it will perhaps be possible to specify more exactly by future research), Old Munda, and several other languages. The words have often undergone a more or less radical adaptation in the process of borrowing. These methods of adaptation (see below, ch. IV) are more evident than the direct traces of foreign systems, which have not yet been studied. Discussing the following points can, therefore, be little more than scratching the surface. In some cases it is also difficult or impossible, at the present stage of our knowledge, to decide whether they can be due to dialectal differences in the native language or to adaptation by speakers of Indo-Aryan. The fairly arbitrary order of III.3.a-j is also a reminder that this can hardly be any more than a sketchy programme for future research.

1. PHONOLOGY I: ACCENT

The accentuation of foreign words was as arbitrary as it was in Old Greek. Cf., e.g., RV *udumbalá-* : AV *udumbála-* (but see Witzel 1983: 240 n.3), MS *udúmbara-* (irrespective of whether they are direct cognates); RV *árbuda-* : *arbudá-*; *Rúśama-* (VIII[3], SV *Ruśáma-*), but his descendants *Ruśáma-* (V.30.12-15). From these facts it may be inferred with due reservation that in (the majority of) the native languages there probably was no distinctive word accent since this could have been rendered by the Vedic accent.

2. PHONOLOGY II: VOWELS

An interchange *u* : *o*, traces of which can be found in Vedic as well as in classical Sanskrit, is open to different explanations. Either it reflects a dialectal differentiation in the native language, or it is due to a different perception among speakers of Indo-Aryan, who interpreted the sound as a closed *o* or an open *u*. The interchange is well known from later Indo-Aryan, e.g. *utkuṇa-* : *okaṇa-*, *okkaṇī-* 'bed bug' (CDIAL 1728). In this particular case the occurrence of *u* and *o* in a prefix (see p. 42) could point to Munda as the probable source of origin.

(There is no reason, however, to connect this interchange with the dialectal difference in modern North Munda (Kherwari), where a closed *o* in Santali corresponds to *u* in Mundari, etc.) Note, e.g., *ghusuṇḍī-* (comm. on Suśr. 162a) : *ghoṣaka-*, *kośātakī-* 'Luffa acutangula' (etc.), which (unlike *bhusuṇḍī-*) do not point to a Munda origin. In Vedic the interchange is found in the following words:

RV *āṅgūṣá-* 'song of praise' : SV *aṅgoṣín-*, epithet of Soma;

YV *úgaṇa-* 'violent' : RV *ogaṇá-* (see p. 80).

Parallel to *u/o* (VedVar. 326-330) an interchange *i/e* (op.c. 314-319), which may sometimes be due to the Kashmiri pronunciation of Sanskrit, is met with, e.g. in RV *śī́pāla-* 'the water weed Blyxa octandra' : AV *śévala-* 'slimy', for which see below, p. 43. Note that Turner, on the basis of NIA evidence, reconstructed an (obviously non-Aryan) word **cippa-*, **cīppa-*, **cēppa-* 'gummy matter' (see CDIAL 4819). On the other hand, RV *e* as against *i* in later texts seems to occur in RV Śaun. YV (?) *pétva-* 'wether' as against TS *pitvá-*, MS VS *pidvá-* (p. 35). In classical Sanskrit this is not uncommon in loanwords, e.g. lex. *peñjūṣā-*, *paiñjūṣa-* as against *piñjūṣa-*, *piñjaṭa-* (KEWA II: 272, DEDR 4143).

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Rigvedic traces of an Old Munda phoneme /ĕ/ can be found in some prefixes, see p. 40. A similar short vowel, whose identity cannot be determined, has left a trace between *s* and *t*, where it either appears as *i*, or is elided. As von Schroeder was the first to see, *kústā-* in MS IV.2.3 (24,17) *devā́ś ca vā́ ásurāś cā 'spardhantā́, 'ditir devéṣv ā́śīt kústā́ 'sureṣu* must be connected with II.1.11 (13,3), III.2.6 (24,1) *kusitā́yī* and (13,6) *kausitó hradó*. KS X.5 (130,3) has *kusidā́yī* and (130,7) *hradáṁ kausidám*. Pāṇini IV.1.37 explains *kusitā́yī* as a feminine to *kusita-*, which is not attested. The elision of *i* in *kústā-*, which is against the rules of Sanskrit, may be of interest for RV I.127.7, VI.67.10 *kīstā́saḥ* 'poets' (VedInd. I: 160, but see Geldner ad I.127.7). In both passages the word is four-syllabic. Did the poets pronounce a non-phonemic short vowel between *s* and *t* (*kīsatā́saḥ*)? Otherwise Oldenberg 1888b: 176. This is not confirmed by a parallel phenomenon between *r* and *v*: *pharv-* in X.106.2 *phárva-ra-*, X.85.22 *pra-pharv-ī́-* (as against X.106.8 *phā́riv-a-*) is monosyllabic. Analyzing *phárva-(ra-)* as *phar-* + *-va-* (Hoffmann 1976: 402) does not account for *phā́riv-a-* in the same hymn. The word structure is

non-Aryan (including *prapharvī-* for *par-pharv-ī-*, cf. pp. 29, 43; I withdraw 1955: 180). See CDIAL 9066, 14712 (**phalph-*, **phabb-*, **pharv-* 'to be prosperous, look well')?

Elision can also have occurred in the source languages and this is particularly true of Dravidian loanwords. Thus *kalka-*, 'a medicinal paste which is a mixture of several ingredients', is clearly a borrowing from Kann. *kalaka*, *kalka* 'mixture' (DEDR 1299). Elision is frequent in Kannada, and since Skt. *kalka-* 'paste' is attested from Rām. 2.85.68f., Yājñ., Suśr. and Daśak. onwards (and in the meaning 'falsehood' since Mhbh.), Kann. *kalka* must date from at least the beginning of our era. For class. Skt. *śmīl-* 'to wink' a possible derivation from Dravidian has been suggested; cf. Tamil *cimiḷi-*, *imai-* 'to wink' (DEDR 2545). In this case, too, the elision can be Dravidian, cf., e.g., Kui *mīḍa*, *mīla* 'child', from **smīl-* < **siml-* (cf. Malayalam *cimiṭṭu* 'young, little', DEDR 2543). It is tempting, in view of Skt. *mīl-* 'to close the eyes, wink', to assume an early date for elision and inversion, but *mīl-* is (against Turner, CDIAL 10143) Vedic (Brāhmaṇas; *sam-mīl-* RV MS KS TS). This would seem to rule out this explanation. Note also *kharpara-* 'thief' : *Kharapaṭa-*, name of the author of the Coraśāstra : Tam. Mal. *karappu* 'concealing, theft' (DEDR 1258, see below p. 67).

In light of these cases the traditional explanation of Skt. *mlecchá-* : Pkt. *milakkha-*, *milakkhu-*, etc. (see CDIAL 10389) may be in need of revision.

3. PHONOLOGY III: CONSONANTS

a) *ś* : Ø

A remarkable phenomenon is the interchange of initial *ś* with zero (accordingly dropping of the initial *ś*?). Traces of zero are only attested in post-Rigvedic texts but this may be accidental. What phoneme of the native language corresponded to *ś* is hard to say. As is well known, in South Dravidian initial /c/ is often dropped (Burrow 1947: 132-147, etc.) but the question of whether it is chronologically possible to connect the Vedic evidence with this ('sporadic') change must be left open. If it can, the Rigveda would furnish precious evidence of how the Dravidian palatal stop /c/ was pronounced in at least one language about 1000 B.C. See also Emeneau 1988: 239-268 for the early pronunciation of /c/. The instances are:

RV *Śirímbiṭha-* : Sarvānukramaṇī *Irimbiṭhi-*;
VS *Śailūṣá-* : AB *Ailūṣa-*.

b) *s* and the 'ruki'-Law

The so-called 'ruki'-law (change of *s* to *ṣ* after *i*, *u*, *r*, *k*) is valid for a group of the Indo-European languages, including Indo-Aryan. The occurrence of *s* in this position is, therefore, an indication of foreign origin. Cf. RV *bísa-*, *kīstá-*, *ṛbísa-* (cf. Pāṇini *nibirīsá-*), *busá-*, *bṛ́saya-*. This does not mean, of course, that all words that have *ṣ* after *i* or *u* are for that reason Indo-Aryan. In many foreign words *s* in this position follows the Indo-Aryan rule. See AiGr. II/2: 462, 500 for *-īṣa-*, *-ūṣa-*, K. 1950: 10 (*dālbhūṣī-*, etc.), 1968: 80ff. (*koradūṣa-*, *śailūṣá-*), H.-P. Schmidt 1968: 51 (*āṅgūṣá-*), etc.

c) *ṣ* after *a*

Things are different in those cases where intervocalic *ṣ* stands after *a* or *ā*, e.g. RV *áṣatara-*, *kaváṣa-*, *caṣā́la-*, *cā́ṣa-*, *jálāṣa-*. For clusters such as RV *baṣkáya-*, AV *jāṣkamadá-* see however p. 57.

Since the foreign character of these words will not be denied (AiGr. I: 239), the question of whether Ved. *aṣ* can also stand for **ṛṣ* or **arṣ* is not relevant to our problem. Only in passing, therefore, attention may be drawn to the testimony, in some rare cases, of Nuristani or Western Pahari. To RV *pāṣṭ́ī-* 'stone' (KauśS. 83.3 *pāśī-*, 85.19 *pāśi-*) and ŞvB *pāṣāṇa-* 'id.' correspond forms with *š* in Nuristani (Ashkun, Waigali) and Dardic (Pašai). Only Kati has *paršī* 'mountain, pass', which was borrowed into Pashto as *parša* 'rock'. See CDIAL 8140. An unexplained *-h-* in some cognates (CDIAL 8138, 8141) may suggest an Indian origin of the word. OIcel. *fjall* n. 'mountain', which could be explained from PIE **pelsó-*, is unclear in view of OHG *felis*, etc. As for *kaṣati* 'scratches, rubs' (ChUp.+), the traditional etymology (PIE **kars-*, cf. AiGr. I: 238, Pokorny 532) can be ignored, but Zoller 1988: 192, refers to Bangani *kors(i)-* 'sich reiben, kratzen, schaben'. However, *kaṣati* cannot well be separated from Suśr. *kacchū-*, lex. *kharjū-* 'itching, scratching' and Telugu *kasi* 'itching', *gajji* 'itch, scab', etc. (DEDR 1104, KEWA I: 139, 190, 303). The *r* in *kors(i)-* remains a problem.

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On the basis of class. *kaluṣa-* 'turbid' : Tamil *kaluḷ-* 'to become turbid' it has been suggested that class. *ṣ* can sometimes stand for the Dravidian retroflex /ṛ/, for which in Roman script the symbols *ḷ*, *L*, *l̤*, *ṛ*, *r̤* and *ẓ* are in use. This might account for e.g. the personal name *Kaváṣa-* (VII.18.12). originally 'straddle-legged', as it cannot be separated from MS III.16.2 (184,7), IV.13.4 (203,14) *kaváṣ-*, III.11.1 (140,4), 11.2 (141,15), 11.3 (144,1), IV.13.2 (200,10), etc. *kavaṣī́-* 'wide spread (of thighs), wide open (of doors)'. Cf. *kapāṭa-* 'panel of a door' (Mahābhārata+), hypercorrect for *kavāṭa-* (Kathāsaritsāgara, also Rām. II.1667*,2), Tamil *kavaṭu* 'forked branch, fork of legs', *kavar*, *kavalai* 'forking of branches', etc. (K. 1955: 180). A formation with *-aḷ*, however, has not so far been found in Dravidian.

That *-āsa-* in YV *kṛkalāsá-* 'chameleon' may be hypercorrect for *-āṣa-* (cf. RV *jálāṣa-* perhaps 'healing') is shown by class. *yavāsa-* 'Manna plant' : YV *yávāṣa-*. Cf. conversely *-īṣa-* for *-īsa-* (Sanskritizations).

RV *kīnā́śa-* (IV.57.8) 'ploughman' : *kīnā́ra-* (X.106.10), which apparently contain two different suffixes, are strange, but cf. *rāspiná-* (I.122.4) : *rāspirá-* (V.43.14). They are listed here because there is a theoretical possibility that *ś* is hyper-Sanskritic for *ṣ*, and that *ṣ* here interchanges with *r* (due to different source languages). This would be of interest because an interchange *-ūṣ-* : *-ūl-* is found in the name of the archer god's bow (p. 16), viz. KS *dālbhūṣī-* : MS *drumbhūlī́-* (class. *dambholi-*) which is hard to explain. Since the two words apparently contain the same suffix, one might think of the Dravidian phoneme /ṛ/, which in some Tamil dialects is pronounced as [ẓ], and in others as [l̤]. In this way also an interchange of *-āla-* and *-āṣa-* (p. 47) would be possible. There are also cases with the suffixes *-oṭ-* and *-ol-* interchanging, e.g. *aṅkoṭ(h)a-* : *aṅkol(l)a-* 'the small tree *Alangium hexapetalum*', all surviving in NIA (CDIAL 113). They are strongly suggestive of Dravidian origin but the Dravidian words for *Alangium lamarckii* and *Alangium hexapetalum* (Tamil *aḷiñcil*, etc., DEDR 280) can hardly be connected with *aṅkoṭa-*.

Although Dravidian is the first to come to one's mind, when one looks for a possible source of *-aṣ-*, *-āṣ-*, it cannot be proved, in the absence of any testimony, that in a Dravidian language about 1000 B.C. the phoneme /ṛ/ was pronounced in such a way that it could be rendered by Vedic /ṣ/ as its nearest

approximation. For *-aṣk-*, *-āṣk-*, *-iṣk-*, *-iṣp-* and *-uṣp-* in RV *baṣkáya-*, AV *jāṣkamadá-*, KauśS. *kiṣkuru-*, AV MS *píṣpala-* n. and AV MS *guṣpitá-* see pp. 54, 61. In all these cases, except *píṣpala-*, there are variant readings with *ḥk*, *ḥp* (see p. 69).

d) The Retroflexes *ṭ(h)*, *ḍ(h)* and *ṇ*

Whereas in *iṣṭá-* (in contrast to Avestan *išta-*) an allophone has become a separate phoneme, intervocalic *ṭ* cannot be explained from Indo-Aryan. In general it accordingly points to a foreign origin. The evidence is (K. 1967: 84 n.18):

(reṇú-)kakāṭa- VI[1], *kī́kaṭa-* III[1], *kévaṭa-* VI[1], *bī́riṭa-* VII[1], *araṭvá-* VIII[1], *báṭ* 9 (cf. *baḷā́*), *bekanā́ṭa-* VIII[1], and in the most recent maṇḍalas: *āghāṭí-* X[1], *iṭátaḥ* X[1], *káṭuka-* X[1], *kāṭá-* I[1], *kúṭa-* I[1], *kū́ṭa-* X[1], *kṛ́pīta-* X[1], *vaṭūrín-* I[1], *vikaṭa-* X[1], *śakaṭī́-* X[1]. For *śraúṣaṭ* I[1] cf. *vā́ṣaṭ* (VII[1], X[1]).

jaṭhára- 30, *jáṭhara-* I[1], *jáṭhala-* I[1], *páṭharvan-* I[1], *píṭhīnas-* VI[1], *śirímbiṭha-* X[1].

Instances of intervocalic /ḍ/ in non-Aryan words are: *krī́ḷati* I[1] IV[1] V[2] VIII[1] IX[12] X[4], *krīḷá-*, *krīḷí-*, *krīḷú-*, *krīḷumánt-* I[4] IX[1] X[4], *kūḷayati* VIII[1], *nāḷī́-* X[1], *pipīḷe* IV[1], *meḷí-* III[1] IV[1].

For /ḍh/ note *jáḷhu-* VIII[1].

The moot point is the question of whether *-aṭ-* from *-ṛt-* and *-aḍ-* (*-iḍ-*, *-uḍ-*) from *-ṛd-* can be assumed for this period (see K. 1954: 245, 1959: 165). The problem, with its long history and extensive literature for and against Fortunatov's 'law', is too well known (see AiGr. I: 167-171 with the *Nachträge*) to need an ample discussion. It is mentioned here because the evidence is of direct importance for the question, to what extent can an intervocalic *ṭ*, *ḍ* or *ṇ* be considered an indication of foreign origin? The problem can be illustrated by the following words (although they have never, to my knowledge, been quoted in this connection): RV *váṅgṛda-*, name of a demon (I.53.8 *váṅgṛdasya śatā́ púraḥ*), versus Saun. *jáṅgiḍa-* 19, name of a healing plant, or *śā́luḍa-* (meaning unknown). In these cases it is of course not certain that the words have a similar morphological structure. The general approach, however, was (and still is) to assume that, if both words contain a similar suffixal morpheme, *-iḍa-* must be a 'Prakritism' and have developed from *-ṛḍa-*. This approach stems from the 19th century, when

theories were developed by means of which it would be possible to explain every Rigvedic word from Proto-Indo-European. Thus Grassmann (1873), confronted with the two Rigvedic words *kartá-* 'Grube, Loch' (which he derived from *kṛt-* 'to cut', although this was semantically far-fetched) and *kāṭá-* 'Grube, Tiefe', added to the last word the comment: "= kartá und daraus entstanden." Similarly already PW. II (1858), col. 205. This etymology has ever since been considered one of the established facts on which the theory of 'Prakritisms in the Veda' was built (see p. 72).

Whereas the existence of a 'vulgar Vedic' by the side of the 'Hochsprache' cannot be denied, the occurrence of words with secondarily inserted *r* in Vedic (see p. 70) compels us to reconsider the evidence. In the light of our present scanty notions about the native languages it does not seem very likely that *váṅgṛda-* has been borrowed as such. If, then, there has been an adaptation, *jáṅgiḍa-*, as a non-adapted word, may give us an indication of what may have happened in the case of *váṅgṛda-* (see p. 73). This is admittedly only an inventory of possible solutions but little more can be expected in the present state of these studies. Its main aim is to point out how uncertain some of the traditional theories are. The strongest case for *-aṭ-* from *-ṛt-* in the Rigveda is *vikaṭa-*, once occurring in a very late hymn: X.155.1 *árāyi kā́ṇe vikaṭe* 'Unholde, Einäugige, Scheussliche' (Geldner). The earliest attestation of *vikaṭa-* in the classical language is about 350 B.C. in Pāṇini 5.2.29, who assumes a suffix *-kaṭa-* after *vi-*, *saṁ-*, *pra-*, *ud-* and (30) *ava-*. There is no reason to question that RV *vikaṭa-* is identical with it. Chronologically the distance between this late hymn and Pāṇini is not too great and semantically it fits the context. It is true, the hymn does contain several foreign words (K. 1954: 247 n.21), but this tallies with the popular character of the hymn, which refers to the magical acts of Śirímbiṭha. The main difficulty is, however, that in RV *kitavá-*, if standing for **kṛtavá-*, there is no retroflex. There may have been different 'popular' dialects. (For *śithirá-* see p. 79. I withdraw 1955: 171).

As for *káṭuka-* 'sharp, pungent' (X.85.34), which was traditionally connected with Lithuanian *kartùs* 'bitter' (Joh. Schmidt 1875: 222, AiGr. I: 169, II/2: 464, 466, Pokorny 1959: 941f.), it calls for an ampler discussion. It is used with reference to a bride's garment: *tṛṣṭám etát káṭukam etát* 'brennend ist es, beissend ist es' (Geldner) and is a *hapax legome-*

non in the Veda (Śaun. 14.1.29, Paipp. 7.19.3, 18.3.8 are repetitions). It occurs in a late hymn (X.85), which contains many rare foreign words; cf. in 8 *kurī́ra-* (X^1) and *opaśá-* (I^1 $VIII^1$ IX^1 X^1), in 20 *sukiṁśuká-* (X^1) and *śalmalí-* (VII^1 X^1), in 22 *prapharvī́-* (X^1), in 29 *śāmulyà-* (X^1) and in 37 *bī́ja-* (V^1 X^1). Later occurrences of *kaṭuka-* and *kaṭu-* 'id.' are not attested until the Mahābhārata. Is, then, RV *káṭuka-* a derivative of a non-attested Vedic **kaṭu-* (AiGr. II/2: 517)? In view of Tamil *kaṭu-* 'to throb and pain, ... to be too highly seasoned, pungent, as curry', lex. *kaṭu* 'pungency, astringency', Malayalam *kaṭuppam* 'pungency', Tulu *kaḍu* 'id.', etc. (DEDR 1135) and Tam. Mal. *kaṭuku* '(Indian) mustard' (DEDR 1137), it is more likely that Ved. *káṭuka-* and class. Skt. *kaṭu-* have been borrowed from Dravidian at different times and that *-ka-* reflects a Dravidian morpheme. In Tamil, however, the meaning 'pungent, pungency' for *kaṭu-* does not seem to be attested in early literature. Note that the source language had the surds [ṭ] and [k], as in *kramuka-* 'areca palm' (Tam. *kamuku*, etc. DEDR 1233), *narmaṭha-* 'chin' (Tam. *namuṭu*, *namiṭu* 'lower lip', DEDR 3596), whereas in Tamil they had become sonants intervocalically around the beginning of our era. Mayrhofer (EWAia I: 290) has rightly given up the traditional etymology. Weber, Leumann, Whitney and Alsdorf (1961: 496) considered *káṭukam etát* for metrical reasons an interpolated gloss. See, however, Oldenberg 1912: 229. If an interpolation, it cannot be later than the Brāhmaṇa period. Note Paipp. 7.19.3 *athā 'hus* **tṛṣṭaṁ kaṭukam*.

A special section (IV.6) will be devoted to the theory of Rigvedic *-aṇ-* from *-ṛṇ-* (cf. p. 79).

It should be noted that the interchange of *ṛ* and *a*, although connected with that of *-aṭ-* and *-aṇ-*, is a different problem (see VedVar. II: 296, Oertel 1926: 25, 1934: 36). The interpretation is often difficult. Cf., e.g., Śaun. *kṛ́kāṭa-* n. 'neck- joint' (9.7.1) as against Śaun. *kakā́ṭikā-* 'hind-head (?)' (10.2.8), RV *reṇú-kakāṭa-* 'mit staubbedecktem Nacken' (VI.28.4). See EWAia I: 286 with references. As long as it has not been proved that /ɽ/ can stand for some Dravidian phoneme, an analysis *kṛ́k-āṭa-* (AiGr. II/2: 268) is a wild guess. (For *-ṭa-* in Dravidian loanwords see p. 45.) Since *a* > *ṛ* can almost certainly be ruled out (such a hypercorrectism being unlikely in Śaunaka), *kṛ-* probably represents the original form. In view of RV *sṛ-* (see p. 40), this could be an Old Munda prefix (note *kar-*, p. 42), but in that case several ways are open to

account for *ka-* (e.g., adaptation of *kṛ-*, or a different prefix, as in *śabála-* 'variegated' versus *śárvarī-* 'night' (?)). Perhaps a single prefix as against prefix-infix?

Post-Rigvedic is *káṭa-* 'straw mat' in TS 5.3.12.2 *vaitasáḥ káṭo bhavati* "the mat is of reeds" (Keith), ŚB+. See EWAia I: 290.

e) *ḍ* > *r*

In four Rigvedic words *r* seems to stand for a retroflex *ḍ*. The possibility of such a change has been envisaged by several scholars in the 19th century (AiGr. I: 212), but since this was not a regular sound change of Indo-Aryan, the evidence was limited to a few questionable cases, such as *írā-* (see, however, K. 1967: 114). With a reference to Wackernagel, Oldenberg 1909: 109 explains *karáṁ* in I.116.13 *ájohavīn nāsatyā karáṁ vām, mahé yáman purubhujā púraṁdhiḥ* "Puraṁdhi, (although) hoarse, called upon you for great (help), while you were driving out, O Nāsatyas..." Oldenberg argues, with a reference to I.117.15 *ájohavīd aśvinā taugryó vām* and 16 *ájohavīd aśvinā vártikā vām*, that *karáṁ* must be a nominative. Geldner's translation "Eure Hände, ihr Nāsatya's, rief ... Purandhi an" has, indeed, little chance of being correct. The same is true of Caland-Henry 1907: 454 "Puraṃdhi vous a invoqué (à titre de) créateurs". Renou 1967: 14 assumes a nominative, like Oldenberg, but refers to *karáṁ-* 'qui agit' (Śaun. 12.2.2, Paipp. 17.30.2 *karéṇā 'nukaréṇa ca*), which does not suit the context. Oldenberg referred to ŚBM 14.9.2.8 *kaḍá-* 'hoarse' (for which the Kāṇva-tradition reads *kalá-*, BĀU 6.1.8; different from class. *kala-*, see DEDR 1302). His interpretation, recommended by the context, can now also be supported in formal respect on the supposition that *kaḍá-* is a loanword. (Tamil *karakara-* 'to be hoarse' is semantically too isolated in the word group of DEDR 1466 to be of importance here.)

kurīra- n. 'hair-net consisting of woolen threads' (X.85.8); for the meaning see Caland 1924: 142 (comm. ad ĀpSS X.9.5 *kumbakurīraṁ jālaṁ tantumayaṁ darbhamayaṁ vā*) and Renou 1954: 57. It has been connected with class. *koṭīraka-* 'diadem', *koṭīra-* 'id., entangled hair', *koṭira-* 'braid of hair' and Tamil *kōṭu-* 'coil of hair' (K. 1955: 152; but semantically this is isolated in Dravidian, see DEDR 2200). Phonetically, the relation *ṭ* : *r* presupposes an intermediate stage *ḍ*, which is not attested in Skt., but cf. in the Dravidian word group (DEDR

2200): Tulu *kōḍu*, Parji *kōḍ* 'horn', Telugu *kōḍu* 'branch of a river'. A parallel case is class. lex. *kurīra-* n. 'sexual union' : *kuṭīra-* n. 'id.', with *ḍ* forms in Pkt. *kuḍuccia-* 'suratam' and *khuḍḍia-* 'id.' (Deśīnāmamālā 2.41 and 75). Cf. with long *ū*: Tam. *kūṭal* 'sexual union', Kannada *kūḍu-* 'to have sexual intercourse', *kūṭa* 'sexual intercourse', etc. (DEDR 1882). Note CDIAL 3240 *kuṭṭanī-* 'bawd'.

kīrín- 'jumping, dancing, frisking' in V.52.12 *chanda-stúbhaḥ kubhanyáva útsam ā́ kīríṇo nṛtuḥ* (said of the Maruts) 'Rhythmically scanning the metres ..., they danced frisking to the well'. See further p. 78.

More doubtful is the fourth instance, viz. *bī́riṭa-* 'crowd' (= *gaṇaḥ*, Yāska 5.28) in VII.39.2

ā́ viśpátīva bī́riṭa iyāte
viśā́m aktór uṣásaḥ pūrváhūtau
vā́yuḥ pūṣā́ svastáye niyútvān

"Wie zwei Clanfürsten *in der Gefolgschaft ihrer Clanleute* eilen auf den ersten Ruf bei Nacht und Morgen Vāyu, Pūṣan mit dem Niyutgespann zum Heil herbei." (Geldner, cf. Renou 1959: 43 'dans l'arroi des clans'). CDIAL 14694 connects it with the word group of 9490 **bhiṭ-* 'meet, throng', with the variants **bhīṭ-*, **bhēṭ-*, **bhēṭṭ-*, **bhēl-*, **bhēll-* and refers to 10133 *milati*, **miḍati* (cf. 10331 *mēla-*, **mēḍa-*: Sindhi *meṛu* 'crowd'). Cf. Panjabi *bhīṛ*, Oriya *bhiṛa*, Awadhi *bhīr* 'crowd' (from **bhīṭ-*) and Nep. *bhelā* 'crowd' (from **bhēll-*). For Ved. *b* : class. *bh* cf., e.g., Ved. *bisa-* 'edible stalk of lotus' : Pkt. *bhisa-*; Ved. *busa-* 'mist, fog' : Marathi *bhusĕ* 'drizzling rain, mist', also class. *busa-* 'chaff' : Pali *bhusa-*, etc. (see below, p. 63). The word formation, however, is not clear: words with suffix *-ṭa-* are mostly Dravidian (p. 45), but **bīḍ-*, whatever its origin, is hardly Dravidian.

A Yajurvedic instance is probably MS *kubhrá-* 'humpbacked bull', whose foreign origin can hardly be questioned on account of CDIAL 3301 **kubba-*, 3904 **khubba-* 'hump', 3300 *kubjá-*, 3903 **khubjá-*. Therefore *bh* (for *b*) is due to Sanskritization (see p. 63); cf. **kubra-* in Pkt. *kubba-ḍa-* 'humpbacked'. *kubhrá-* has been connected with Santali *kubḍha* 'humpbacked', cf. Mundari *kuba* 'a permanent stoop or bend in the waist, back or shoulders', *kubu'j*, *kubuṅ*, *kubṛuṅ* 'id.', but borrowing from Indo-Aryan may sometimes have taken place.

A clear case in class. Skt. is Pāṇini 5.2.32 *nibir-īsá-* versus *nibiḍá-* *'nate nāsikāyāḥ'* ('flat-nosed'). Cf. Nepali

nepṭo 'flat-nosed', *cepṭo* 'flat', etc., Skt. *cipiṭanāsa-* (CDIAL 4818). See pp. 37, 54. In Munda, initial *n* (for palatal *ń* in Santali) is the nasalized variant of *c*. Note that *nibiḍa-* 'dense, compact' (CDIAL 7225) is a different word and that Śiś. 7.20 *nibirīsa-nitamba-* is due to a mixing up of the two words.

As instance of *ḍ/r/l* in NIA is CDIAL 2344 **ummaḍ(ḍ)-*, **ummāḍ-* 'to rise, bubble up': 2345 **ummar-*, **ummār-* 'id.', 2338 **ubbar-*, **ubbār-* 'to rise, swell' : 2346 **ummal-*, **ummāl-*, 2339 **ubbal-*, **ubbāl-* 'to rise, swell, boil', which dispenses with Morgenstierne's explanation (sub 2339) from Indo-Aryan.

Since Indo-Aryan *ḍ* > *r* is unknown (AiGr. I *Nachträge*: 117, VedVar. 141), the words have remained unnoticed. That matters are different in regard of foreign words may have been insufficiently realized. As for the interpretation, it is impossible to decide whether *r* reflects a (dialectal) development in the aboriginal language or a mishearing on the part of the Indo-Aryan speaker. For the first possiblity it is interesting to observe that Proto-Dravidian /ṭ/ has become /r/ or /rr/ in many Central and North Dravidian languages, such as Gadaba (Ollari), Gondi, Koṇda, Kuṛux, Malto and Brahui. However, since nothing is known of their history, it cannot be determined whether this is an old development or not. On the other hand, it is a well-known fact that Dravidian [ḍ] has often been rendered by [ṛ] in other languages, such as Old Greek (Ptolemy *kotto-nar-ikḗ* for Tam. *nāṭu* [na:ɖɯ]) and French, see p. 48.

In this connection a few words may be added on RV+ *gardabhá-* 'ass'. It has long been suggested that it might be a borrowing from Dravidian; cf. Tamil *kaḻutai*, Kannada *kaḻte*, *katte*, Telugu *kāḍide*, Naiki *gāṛdi*, Kuwi *gāṛde*, etc. See DEDR 1364, where the Dravidian origin of *gardabhá-* is still maintained. Since no trace of a PIE word for 'ass' has been found (the Indo-Aryan cognate of Iran. *xara-* is first attested in KātyŚS and Manu) and attempts to explain *gardabhá-* (like *rāsabha-*) from Sanskrit have not been successful, borrowing from Dravidian cannot a priori be considered "ganz unglaubhaft" (EWAia I: 473). However, both the possibility of an initial sonant stop in Dravidian at that time (the origin of RV *gárta-* 'chariot seat' is uncertain) and of /r/ for Dravidian /ṛ/ (whose normal equivalent in Sanskrit is later /ḍ/) are details that still await elucidation.

Initially /ṭ/ sometimes interchanges with /r/, as in the words for 'borax': *ṭagara-* (lex. *ṭaṅga-*, *ṭaṅgaṇa-*), *ṭaṅkaṇa-* (lex.

ṭaṅka-, *ṭaṅkana-*) : lex. *raṅga-*, *raṅgada-*. The suffixes *-ra* and *-da* may reflect the same morpheme, but initial /ṭ/ points to a source language that was neither Dravidian nor (probably) Munda.

f) *ḍ* : *d*

A well-known instance of an interchange between *ḍ* and *d* is Ved. ep. (MS+) *udumbára-* 'Ficus glomerata' : cl. *uḍumbara-* (see EWAia I: 217). It has been suggested that such cases of an interchange between the older and the later language (cf. also RV *pan-* 'to praise' : cl. *paṇ-*) are due to a resistance in higher circles to adopting foreign words with non-conditioned retroflexes (K. 1959: 165, 1967: 88, etc.). However, there need not necessarily be a single explanation for all cases. Different interpretations are sometimes conceivable, although the nature of the evidence excludes a decision. It is possible, for instance, that an alveolar /d/ in a word borrowed from an indigenous language, was rendered by a dental /d/ in the older language but by a retroflex in later times, just as the alveolar of modern English is now mostly rendered by /ḍ/ in Indian languages.

On the other hand, *d* for *ḍ* can, given the nature of the oral text transmission, be merely a mistake. For **araḍu-* (= *áraṭu-*, Pkt. *araḍu-*) 'Colosanthes indica', Śaun. 20.131.18 (Hoshiarpur ed.) reads *áradu-* (Khila Sūtra *aradúḥ*).

g) *v* : *b*

The interchange of *v* and *b* in the Indian text tradition is a well-known crux. See AiGr. I: 183 (in details no longer correct), VedVar. 109 and, e.g. Burrow 1970: 54. A development *v* > *b* within Indo-Aryan can probably be excluded for Vedic in general. A few cases with a secondary *b* in Śaunaka are due to a less correct transmission of this text and may stem from a much later (post-Vedic) period. Cf. 6.16.1 *ābayú-*, 10.2.17 *bāṇá-* 'music', 11.11(9).19 *prábl ī na-*, the variant reading 6.30.2 *śatábalśā-* (Roth and Whitney) and 1.11.3 *Biṣkali-* (p. 55). The general tendency at all times was to 'sanskritize' words with the foreign phoneme *b* by changing it to *v* or *bh* (p. 63), e.g. Ved. *bísa-* : *viṣaṇḍa-* n., comm. *bhiṣaṇṭaka-* (a 'laukika' term), Pali Pkt. *bhisa-*.

An old well-known crux is RV *páḍbīśa-* 'fetter'. From the

Vedic Concordance 48a (*átho yámasya*), 729b (*yác ca páḍbīśam*), 969b (*saṁdā́nam árvantam*) and VedVar. 114, 115 the situation is not sufficiently clear. Apart from TS, the whole Yajurveda (MS, VS, KSA 6.5: 178,5 in the Chambers ms; also p. 178,10?) and the AV (Śaunaka 6 times, Paipp. 3.17.4 in the Orissa mss) have *páḍvīśa-*. Only the Kashmir ms of Paipp. has *paḍbīśa-*, *paḍbīsa-*, *paḍbhiśa-*, *paḍbiṣa-* 2 and once *paḍviṣa-* (16.142.4). Since it is inconceivable that Rigvedic *v* has been changed to *b*, *páḍvīśa-* must be a 'sanskritized' form. On the other hand, the three *hapax legomena* of uncertain meaning in RV I.133.1 and 3, viz. *-vailastha-* (in *mahā́vailastha-*), *vailasthānā́-* and *vailasthānaká-*, are hardly derivations of *bíla-* (Sāyaṇa, Grassmann).

The most interesting Rigvedic instance of an interchange *v* : *b* is V.85.3 *kávandha-* 'cask, barrel' (also VIII.7.10, IX.74.7 *kávandham udríṇam*) as against V.54.8 *kabandhín-* 'having a barrel'. In these certainly foreign words the *v* can be hypercorrect, but the possibility that the interchange existed in dialects of the source language cannot of course be excluded.

Only in passing attention may be drawn to RV *śī́pāla-* 'a water plant' : AV *śévala-* 'slimy, watery', which will be discussed under *pra-cībala-* (p. 43).

Note the difference between *b* < *v* and *b* < intervocalic *p* in 'popular' forms (if the current explanation of RV *-bāra-* from *-pāra-* is correct). Hence the difficulty of explaining I.120.12 *básri* 'in the early morning' (?) from **vásri* (see KEWA).

h) Surds and Sonants

The interchange of surds and sonants is one of the most striking characteristics, which has long been noticed and which, at first sight, might seem one of the clearest criteria. Since in Indo-Aryan such an interchange is excluded, it might seem the safest criterion for foreign origin. This may in general be correct (all entries and reconstructions in CDIAL with interchanging *initial k* and *g* are borrowings), but the difficulty is that some instances can be simple mistakes due to the oral transmission of the Vedic texts.

Most authorities understandably confine themselves to merely stating the facts. See, e.g., AiGr. I: 117, *Nachträge* 64, 69, Whitney-Lanman 1905: 1043, 1045, VedVar. 26-46, Oertel 1926a: 322, Renou 1952: 15, Minard 1956: 87, 332, etc. Interpreting

these facts is often difficult since the phenomena are complex. This is not the place to enter into a thorough discussion, but a few different cases can be distinguished:

a) One or more variants of a word are mistakes, due to mishearing of a spoken text or, later, to misreading of a written one. If the word was Indo-Aryan and in general use, it is mostly a colloquial or so-called 'Prakritic' form that has ousted the original word. A well-known instance of 'vulgar' and hypercorrect forms is the word for 'pastern': Śaun. *ṛcchárā-* (v.l. *ṛtsárā-*), Paipp. (Kashmir) *hṛtsarā-*, VS *ṛkṣálā-*, MS *atsárā-*, KSA *accharā-*, TS *acchálā-*. Obviously (although this point has sometimes been overlooked: AiGr. I: 117 *gulphá-*, *gárta-*, Oertel 1934: 30) this origin can only account for *intervocalic* sonants for surds, e.g. KapKS *sigatā-* (in prose) 'gravel, sand' : *sikatā-* (in mantras). In view of OPers. *θikā-*, the speakers of Indo-Aryan have probably imported the word from Iran, whatever its origin may be. An analogous case is MS IV.12.3 (183, 15) *sṛkáṁ saṁśáya pavím indra* (= RV X.180.2), but II.9.3 (123,5) *sṛgāyín-* for KS VS *sṛkāyín-* (TS *sṛkāvín-*) and II.9.9 (129,3) *sṛgávant-* (Padapāṭha *sṛgắvant-*) as against KS KapKS TS *sṛkắvant-*. Note also KapKS 27.2 (^{2}133,6) *sṛgāyubhyo* : MS *sṛgāyíbhyo*. The hypothetical survival of **sṛkka-* in NIA (CDIAL 13575) can be ignored.

In other cases a foreign word, no longer known from usage, was mutilated in the process of oral text transmission, e.g. the word for 'wether' in the Yajurveda: KS *bidva-*, MS VS *pidvá-*, TS *pitvá-*. Mishearing of an uncommon word may have led to these variants.

b) The variation can be intentional, because a mantra is used for other purposes than originally intended. Śaun. 19.24.5 reads *bhávā gṛṣṭīnắm abhiśastipắ u*, whereas Paipp. 15.6.2 and ĀpMB, HirGS, PārGS have *bhávā kṛṣṭīnắm* (etc.). Here a different *word* has been substituted. The text is not, however, clear: in the corresponding verse 19.24.6 one would expect to find (just as in 2.13.3) *ábhūr gṛṣṭīnắm abhiśastipắ u*, but here Śaun. reads *vāpīnắm* for *gṛṣṭīnắm*.

c) The case of RV *kulphá-* 'ankle' is much clearer. It also occurs in MS ŚB JB GopB, whereas *gulphá-* is the reading of Śaun. Paipp. KS KapKS TĀr. KauśS, of Mhbh. Rām. and the classical language, and is further the form occurring in MIA (Pali *gopphaka-*, Pkt. *guppha-*, *gompha-*) and NIA (CDIAL 4216). In such cases the two variants apparently represent

borrowings from different languages which belong to the same family. The variation also represents a historical reality in RV *kartá-* and *kāṭá-* 'hole, pit' as against ŚB KB GopB *gárta-* 'hole, cave, grave'. Also in this case it is the form with *g* that survives in Mhbh, the class. language, and further in Pkt. *gatta-* and NIA (CDIAL 4050). But in NIA there are also descendants of **khaḍḍa-* (CDIAL 3790) and **khāḍa-* (3860), etc. (see p. 73) by the side of 3981 **gadda-* 'hole, pit', 3979 **gaḍḍ-* 'to dig, bury'. Note also RV *gárta-* 'high seat, chariot seat', which cannot be separated from **garda-* 'seat' (CDIAL 4053). In such cases the 'variation' is likely to be a phenomenon of the source language(s), although an incorrect perception (p. 48) may sometimes have played a part in it.

In the two foreign linguistic families that are extant an interchange of surds and sonants is well known. In Proto-Dravidian there was no phonemic contrast between the two categories. The sonants now occurring initially in most languages (except standard Tamil) are supposed to have arisen in external and internal sandhi. It is not necessary to give examples as they can be found on every page of DEDR.

As for Munda, here the interchange is not due to a regular phonetic development but it belongs to the opaque field of 'Consonant Variation'. See in general K. 1965: 59-66. By far the majority of the Munda examples, however, belong to the class of 'echo-words' of the type Mundari *butu butu* = *putu putu* 'flying in flocks, in clouds'. An extreme case of variation in a 'common' word might seem to be Korwa *buḍuri* 'navel' : Mundari Ho *buṭi*, Sora *pudi*, but there must have been borrowings and possibly back-borrowings from Dravidian: note Gondi *buḍri* and cf. Kann. *buḍḍa*, Tel. *boḍḍu*. The nasalization in Gondi *moḍḍi* etc. points to Munda rather than Dravidian (see p. 37) and Kuṛux *buṭṭi* may (like many Kuṛux and Malto words) have been borrowed from Munda. But the relation between **buk-* (Santali *buka*, Birhor *buka*, and in Dravidian Tam. *pokkuḷ*, Tel. *pokkili*, etc.) and **buṭ-* (which I do not consider related: K. 1958b: 240, against Pinnow 1959: 375 and DED 3652, DEDR 4460) is complex and will require a thorough investigation when more data have become known.

i) Nasalization of (Initial) Consonants

This phenomenon (mostly nasalization of stops, but also of *y* and *w*) is, as far as is known at this moment, predominantly

characteristic of Munda, that is: of Austro-Asiatic. In Dravidian, it is true, there is sometimes an interchange of initial *yā-* and *nā-* in Tamil *yām* : *nāṅkaḷ* 'we' (DEDR 5154), *yāṉ* : *nāṉ* 'I' (DEDR 5160) and incidentally of *a-* : *na-* in *araḷ-* 'to be terrified' : Parji, Gadaba *nar* 'fear' (DEDR 3605) or Tam. *aḻu-* 'to be severed, break' : *naḻu-kku-* 'to cut off, mince, chop' (DEDR 315, 3625; 'lost in Tamil', p. XXXV) and an interchange of *v* and *m* is not uncommon. In Munda, however, we find *m* interchanging with *p*, *b*, and also *w*; **ṅ* (initially > Santali *ń*, Mundari, etc. *n*) interchanging with *k*, *g*, *h*; and Santali *ń* (initially > *n* in Mundari, etc.) interchanging with *c*, *j*, *y*. See K. 1948: 380-401, Pinnow 1959: 20, 222-25, 275, 398. Instances are: Sant. *maṛcuk'* 'to eat up, manage' : *paṛcuk'* 'to eat up, finish, deceive'; *miko moko* 'chubby-cheeked' : *piko poko* 'fat, chubby'; *ńoc'* 'youngster, chit, brat' : *jõc'* 'chit, child'; *ńeṅget'* 'bright red' : *jeṅget' arak'* 'deep or dark red, crimson'.

An intervocalic example in Austro-Asiatic and Austronesian is, e.g. Sant. *gaṛvić* [gəvi'j] 'to beckon with the hand (esp. moving the hand with the fingers downwards and towards oneself)', *gaṛvić goḍak'* 'to touch slightly, as a sign', Mundari *gāwi'j* 'to beckon from a distance (by holding the palm of the hand downwards and then bending the four fingers one or several times); to beckon somebody or draw his attention by touching his arm with the hand; to play the guitar', Ho *gāui*, Kharia *gou'j* 'to beckon (with hand)' : Central Sakai *gawet* 'to beckon (with hand)', Malay *gamit* 'finger movement inwards, of man fingering a guitar, beckoning with the fingers, moving the fingers in Malay dancing; to touch slighly with the finger in order to give a hint or draw attention'. Although apparently no longer productive nowadays in Munda, its role must have been important in older Munda. Przyluski was among the first to draw attention to the interchange *bh/m* in Sanskrit loanwords.

Ignoring these facts has led to misinterpretations in Indo-Aryan. A case in point is Nepali *nepṭo* 'flat, obtuse-angled; flat-nosed' and *nepṭe* 'flat-nosed'. Turner 1931: 353a added to *nepṭo* the comment: "cf. *cepṭo* (contam. with *nāk*?)." Nep. *cepṭo* means 'flat' and has many NIA cognates, such as Oriya *cepā*, *cepṭā* 'flat', mostly, however, with *a*, e.g. Hindi, Panjabi *capṭā* (Turner 182b). It is the word group that is represented in Sanskrit by *cipiṭa-* 'flat, flat-nosed' (Pāṇini 5.2.33). Turner returned to the problem in CDIAL 4818, where he ignores Nep. *nepṭo* and posits a reconstruction form **cippiṭṭa-* to account

for Nep. *cepṭo*, etc. Much more natural would be to take both *cepṭo* and *nepṭo* as more recent borrowings direct from a Munda language. See further p. 53 for *cirpita-* : *carpaṭa-*.

Nep. *nepṭo* is of direct importance for a Sanskrit word. By the side of *cipp-* in Pali *cippiyamāna-* 'crushed flat' (CDIAL 4674) Turner posits **cibba-* 'flattened' for Marathi *cībā* 'flattened', etc. (CDIAL 4821). This, too, may be a direct borrowing from Munda, but the important point is the sonant *b*. With the same nasalization as found in Nep. *nepṭo*, but with sonants for both surds we find Skt. *nibiḍa-* 'flat-nosed' (Pāṇini 5.2.32), a nasalized variant of *cipiṭa-* (p. 32).

In an early publication attention was drawn to Tamil *ñemiṭu-* 'to crush, press out with the hand; to rub', which could be a nasalized variant of *nibiḍa-*. In that case it would be of Munda origin, but semantically the word group (DEDR 2926) differs so much that it must probably be kept apart.

j) Interchange of Initial *k-* and *Ø-*

In classical Sanskrit there are a few word groups in which initial *k* seems to interchange with *Ø-*, viz.

(CDIAL 3348):

kulūta- (Mhbh 6.10.52, 8.8.35,45, VarBS 8.10, etc. Kādambarī p. 101,12 Peterson), *kolūta-* (v.l. Rām. 4.41.863*), *kaulūta-* (Mudrār.), *kulūṭa-* (v.l. Viṣṇupur.) : *ulūṭa-* (v.l. Viṣṇupur.; also *utūla-*, cf. PāraskGS *utūla-* 'servant'), *ulūta-* (v.l. Mhbh. 6.10.52). Cf. W. Pahari *kuḷū*, Hindi *kulū* 'the valley of Kulū'.

(CDIAL 3287, 1990):

lex. *kuddāla-* 'Bauhinia variegata, mountain ebony' (also lex. *kuddala-*, *kudāla-*, *kudāra-*, *kuṇḍalī-*; Gobhila *kovidāra-*) : Suśr. *uddāla-* 'Cordia myxa or latifolia' (also Pali and Pkt.; note Hindi *uṛāl* 'bark of Bauhinia variegata, rope made of this' : Oriya *kuḍāla* 'Bauh. var.'), **uddala-* (in Hindi *ūdal* 'a tree from the bark of which a rope is made').

An interchange *k/Ø* points in the direction of Munda. Konow was the first to recognize a dialectal interchange of *k* (in Korku) : *h* (in the Kherwari group of Santali, Mundari, Ho, etc.). When Sora became better known it turned out that in one group of words Sora had *k* (like Korku), in another it had *Ø*. Pinnow 1959: 198f., who detected this difference, reconstructed Proto-Munda **q* for the second group. In both cases Korku and Kharia have *k* as against *h* in the other group.

An interchange *k/h* is also occasionally met with in Sanskrit, e.g.

(CDIAL 3327):

lex. *kurala-*, Yaśastilaka *kurula-* 'lock of hair on the forehead' (cf. Deśīn. 2.63) : *hurula-*, Yaśastil. I.569,6, Śrīkaṇṭhacaritam XIII.25 (comm. *alakaracanaviśeṣaḥ*). See Schmidt, *Nachträge* 150.

It is clear that this material is problematic: in none of these cases has a connection with Munda been found so far. If the variant readings *ulūta-*, *ulūṭa-* are of any importance, it is possible that their explanation must be sought outside Munda. Little more can be done at this moment than listing such possible problems for future research. The same is true of an old crux (provided the words are actually connected):

(CDIAL 3755):

lex. *kṣumā-* 'linen, etc.', Suśr. *kṣauma-* 'prepared from linseed', n. 'linseed' (Suśruta), 'linen cloth' (LāṭyŚS) : ŚB+ *úmā-* 'flax'. Sylvain Lévi referred to Chinese *hu-ma* 'flax'. Mayrhofer, EWAia I: 225, s.v. *úmā-* no longer mentions *kṣumā-* as a possible cognate but refers to Steblin-Kamenskij, who thought it may be a 'wandering loanword'. If so, the cognates of *úmā-* in Iranian (Yidgha and Munji) do not prove the Indo-Iranian character of the word. It would seem advisable not to exclude prematurely the possibility of a connection between *kṣumā-* and *úmā-*, even though it is impossible at present to account for a (possible) interchange *kṣ* : Ø. Note *kṣoḍa-* (p. 57).

4. MORPHOLOGY I: PREFIXES

A few words contain prefixes. These are unknown in Dravidian but were common in Austro-Asiatic. They may also have been characteristic of other Indian languages that have disappeared. In modern Munda there are, owing to the typological change that has taken place in these languages, only some petrified relics, e.g. Santali *paṭup'*, Mundari *paṭu'b*, Korku *parub* 'to uproot' : Ho *tub*, *rub* 'id.'; Sora *palud* 'to slip' : Mon *lot* 'to fall down from weakness'; Santali *ạtu* 'to flow, float' : Korku *tu*, Kharia *tu-ḍā* 'to float', etc. (K. 1955: 144, 150f., and in general Pinnow 1959: 10ff.). The occurrence of Munda borrowings in the Rigveda raises some questions. According to some scholars Munda was never spoken west of Orissa, Bihar, Madhya Pradesh and eastern Maharashtra (Burrow 1958, quoted by Southworth 1979: 200). The obvious occurrence of Old Mun-

da names in the Rigveda points to the conclusion that either this statement should be revised or that some parts of the Rigveda (e.g., book VIII, see p. 16) stem from eastern parts of North India.

However that may be, the name *Sṛ́binda-* (VIII.32.2) 'name of a demon', calls for an ampler discussion (see K. 1939: 307-317). In origin it was in all likelihood the name of (the chief of) an inimical tribe, and in the Yajurveda a *Baindá-*, member of the tribe of **Bindas* (modern Bind), is mentioned. The Binds still exist as a separate tribe. The existence of a prefix *sṛ-* is warranted by class. Skt. (lex.) *sṛ-kaṇḍu-* f. : *kaṇḍū-* f. 'the itch' (K. 1950: 6). Recently, it is true, it has been contested that *sṛ-kaṇḍu-* points to a prefixing language (EWAia I: 292) but it is not yet clear what other explanation there can be for *sṛ-*. This interpretation of *Sṛ́binda-* allows some phonetic conclusions. In Austronesian (in casu: Malay), which has some historical connections with the Austro-Asiatic languages, there exist prefixes of the type *kĕr-*, *bĕr-*, *mĕr-*, *tĕr-* with definite grammatical functions. For the sake of clarity the phoneme */ĕ/ (pĕpĕt)* is here spelled according to the older (Dutch) spelling system of Austronesian. The same spelling will here be used for the reconstruction of Old Munda, although Pinnow 1959: 146 uses a different symbol. The assumption of an Old Munda prefix **sĕr-* (CVC) explains the two forms in which it has been handed down in the Vedic texts, viz. as *sṛ-* (CV) and as *sur-* (CVC) in respectively *Sṛ́-binda-* and JB *Ku-sur-binda-*: the former was phonetically more exact but turned the long syllable into a short one, whereas the latter was more exact in this respect but was compelled to render the quality of the vowel *ĕ* by an Indo-Aryan phoneme (for *ku-* see p. 42). There is also a variant TS PB ṢB (ŚB) *Ku-suru-bínda-*, which is particularly interesting because of RV *Puru-kútsa-* (see p. 43). This variant cannot be explained from *Kusurbinda-*, for a svarabhakti form *uru* for *ur* would be quite exceptional in Sanskrit. It allows but one conclusion, viz. that the authors of the TS and the Pañcaviṁśa and Ṣaḍviṁśa Brāhmaṇas, who wrote *Kusurubínda-*, were either themselves still acquainted with the indigenous pronunciation of **Kusĕrbinda-* or quoted from an authority who had tried to render *ĕr* in his own way. The same fluctuation in rendering **ĕr* according to Sanskrit phonology is found in RV *ṛ́bīsa-* n. : JB *arvīṣa-* 'chasm'. Apparently *ar* and *ur* were two expedients to render **ĕr*. Thus *tur-* in *turphári-* (see p. 42) probably stands for **tĕr-* (similar to the

prefix occurring in Austronesian). It shows that *sur-* in *Kusurbinda-* is not due to umlaut.

It would be interesting if a morpheme *sĕr-* (either as a prefix or as a combination of prefix + infix) could also be traced in Austronesian. A petrified prefix **sĕ-* clearly occurs in, e.g., Malay *sĕ-mut* 'ant' (from **sĕ-muc*, cf. North Munda [Kherwari] *mu'j* 'id.', etc., K. 1948: 376). Leiden specialists of Austronesian, however, deny that such a prefix *sĕr-* can be shown to have existed and that it still occurs as a petrified relic. With due reservation, therefore, attention may be drawn to the following Malay words: *sĕr-buk* 'powder, grit' : *bu-buk* 'grit; crushed, pulverized', *a-buk* 'dust, powder, grit', and *sĕr-ikat* 'allied' : *ikat* 'bundle, bush'. They suggest a (historical) analysis as *sĕr + buk* and *sĕr + ikat*.

The same prefix **sĕr-* may have been rendered by *śar-* in *śarkóṭa-*, name of a snake (Saun. 7.56(58).5, Paipp. 1.48.1), cf. *śárkoṭam arasám viṣám* in the same hymn. Böhtlingk and Roth already referred to *karkoṭaká-*, name of a snake (Khila II.14.8, Mhbh., etc.). Paipp. *kārkoṭasya* in the Kashmir ms. is corrupt for *śarkoṭasya* (Orissa mss).

From the adaptation of prefixed words it appears that the Indo-Aryan speakers heard a long ('geminate') stop after prefixes. Since there is no reason to think that this gemination was a characteristic of the source language, such cases as *ma-tkuṇa-*, *Prá-skaṇva-*, *ka-stīra-*, *ku-stumburu-* will be discussed below, pp. 53, 57, 60.

The following list of some words which contain foreign prefixes is only illustrative:

ā-: *ā-kenipā́sāḥ* (*áśvāḥ* IV.45.6) : *kenipā́nām* (viz. *índūnām* X.44.4); probably *ā-khaṇḍala-*, epithet of Indra; perhaps *ā-raṅgará-*, (epithet of) a bee. It is not uncommon in class. Skt., e.g. *ā-ḍambara-* 'drum' (: *ḍamaru-*), *ā-ndolayati* 'swings' : *dolāyati* 'rocks about like a swing', *hi-ndolayati* 'id.' (cf. Santali *hi-riṅ* 'to forget' : Korku *riṅ*, Mundari *ri-riṅ*).

i-: no certain instances in the RV, but note lex. *i-cikila-* 'mud, mire' : *cikila-*, *cikhalla-* 'id.'. It is mentioned here because of RV *Ilībíśa-*, a demon's name, possibly to be analysed as *i-lībí-śa-*.

u-: *u-dumbalá-* (in X.14.12 *udumbalaú yamásya dūtaú*) 'reddish'; for the prefix *u-* cf. MS+ *u-dumbára-* 'Ficus glomerata' : class. *ka-dumbarī-* 'Ficus oppositofolia' (Katre 1957: 280); perhaps *ulūkhala-* n. 'mortar' (? still unexplained,

EWAia I: 231). In class. Skt. there are more instances, e.g. Suśr. *u-ruvu-* 'Ricinus communis' : ŚārṅgS. *ruvu-*; *u-tkaṭa-* 'a kind of grass, Saccharum Sara' (*i-tkaṭa-* 'a kind of reed or grass') : *kaṭa-* 'id.' (see p. 57); *u-tkuṇa-* 'bed bug' : *u-ṅkaṇa-*, (*u-ṅkuṇa-*?), *o-kaṇa-*, *o-kkaṇī-* and *kuṇa-*, *ma-tkuṇa-*, AMg. *ḍhe-ṅkuṇa-*; *u-cciṅgaṭa-* 'a kind of crab' : *ciṅgaṭa-*, *ciṅgaḍa-* 'shrimp'; *u-cciṭiṅga-* 'a small venomous animal living in water' : *ci-cciṭiṅga-* 'a certain venomous insect'. Cf. in Munda: Ho *uṭuṭua*, *uṭuṭoa* 'Adam's apple, gullet, throat' : Dhimal *totoa* 'throat', etc. One of the problematic words is *u-tkūṭa-* 'umbrella, parasol' with an (Old Munda?) prefix before a Dravidian word (Tam. *kuṭai*, etc. DEDR 1663). For *tk* see p. 57, unless = *ut-kūṭa-*.

o-: probably a mere variant of *u-* (see pp. 22, 80, and below *ko-* and *go-*). It occurs in such words as Pkt. *o-limbhā-* 'a species of ant'. It is here mentioned because such a Rigvedic word as *opaśá-* possibly contains this prefix.

ku-: see *Ku-surbinda-* (p. 40). Not rare in later Sanskrit, e.g. lex. *ku-vaṅga-* n. 'tin, lead' : *vaṅga-* n. (CDIAL 11195), *ku-śīlava-* : *śailūṣá-* (p. 20). Perhaps in I.191.3 *śarāsaḥ kúśarāsaḥ*. Under this heading reference may be made to *ko-*, *go-*, *ka-*, *kar-*, *gar-*, etc. It is not certain that *kodaṇḍa-* 'bow' contains a prefix, but a prefix *go-* clearly occurs in Hem., Med. *go-ḍimba-*, *go-ḍumba-* 'water-melon, *Cucumis maderaspatanus*' (: Santali *biṅ ḍimbu*) and e.g. Pkt. *go-raṁphiḍī* 'alligator' : *khā-raṁphiḍī*, *rapphaḍiā* 'id.'. *ka-* is the most common prefix (e.g. *ka-stīra-*, p. 53); for *kar-* cf. lex. *kara-vīra-* 'Nerium odorum' : lex. *vīra-*, *kar-koṭaká-* (: *śar-kóṭa-*, p. 41). Santali *gargaḍi* 'a certain grass' is again a problem because it cannot be kept separate from Telugu *gaḍḍi* 'grass', etc. (DEDR 1158). See above *utkūṭa-* (if *u-tkūṭa-*, a prefixed Dravidian word) and below *sa-kuruṇḍa-*.

tur- for **tĕr-* (p. 40): in X.106.6 *tur-phári-*, *tur-pharítu-*. See further below sub *par-*.

ni- (different from Indo-Aryan *ni-*) occurs in several words of class. Skt. and Prakrit: *ni-kharva-* : *kharva-* 'dwarfish', Pkt. *ṇi-melā-* : *velā-* 'gums'. Probably also in Skt. *ni-kurumba-* 'multitude'. A Vedic instance may be RV VS *ni-cumpuṇá-* : YV *cupuṇ́ikā-*, name of the seventh Kṛttikā (see p. 87).

par- (for **pĕr-*): *par-pharíka-* (X.106.6) occurs along with *tur-phári-*, *tur-phárītu-*. Cognates, attested in the same hymn are *par-pharat* (verb form in 7), *phárva-ra-* (in 2) and

phắriv-a- (in 8). The verb form may have been re-interpreted as a reduplicated formation of a (non-existent?) verb **pharati*. The same prefix no doubt occurs in *pra-pharvī́-* (see below).

puru-: apparently for **pĕr-*, perceived as **pĕrĕ-*. Note, apart from *Ku-surubinda-* : *Sṛ́binda-*, also the prefix **kĕr-* in class. Skt. (lex.) *kuru-kanda(ka)-* n. 'horse-radish' : *kanda-mūla-* n. 'radish', *kanda-* 'a kind of tuberous root, bulb', *kandila-* 'a kind of tuberous plant' (CDIAL 2723). Note also *bhru-* for *bhṛ-* in *bhrukuṭī-* 'a frown'. *Pĕr-* apparently occurs in *Puru-kútsa-* (I^3 VI^1), a man's name, since *puru-* 'many' is here excluded. Note that *pra-* in *Prá-skaṇva-* (and *Prá-maganda-*? see below) seems to characterize a man as a descendant of *Káṇva-*. This may also be the function of *puru-* in *Puru-kútsa-*, which Geldner took as standing for *Kútsa-*; see Neisser 1930: 60.

pra- seems to be a Sanskritization of **pĕr-* in *pra-kaṅkatá-* (I.191.7) 'a particular venomous worm or reptile' : *káṅkata-* (I.191.1) 'a slightly venomous animal'; *pra-pharvī́-* (X.85.22) 'unmarried young woman' (Narten 1986: 43; cf. also p. 23: *phárvara-*); *Prá-maganda-* (III.53.14), PN ('son of *Maganda'?); *Prá-skaṇva-* (I^2 $VIII^1$ X^2), name of a member of the Kaṇva family. The last name can hardly stand for **pra-skṛṇva-* because a) *skṛ-* is only attested after *pari-* and *sam-*, b) *pra-kṛ-* does not explain the name, and c) there is no evidence for *ṛṇ* > *aṇ* in the Rigveda (p. 79). The name *Káṇva-* is, like *Kaṭha-*, etc. in all likelihood non-Aryan (p. 16). For *sk* in *Práskaṇva-* see p. 67 and cf. K. 1960: 68 (*bhra-/bhṛ-* in *bhrakuṭī-*, *bhrakuṁśa-*).

[Since this interpretation of *pra-* is likely to meet with disbelief, attention may be drawn to the following words of class. Skt.: *pra-puṁnāṭa-*, *pra-puṁnāḍa-* 'Cassia Tora' : *puṁnāṭa-* 'id.' (both in Rājanighaṇṭu; cf. *pra-punāḍa-*, lex. *pra-pannāḍa-*); *pra-puṭa-* 'a large cornucopia' : *puṭa-*; *pra-pūlikā-* 'a kind of pastry' (Gopālakelicandrikā) : *pūlikā-*, *pūlī-*; *Pra-vaṅga-*, name of a people : *Vaṅga-*. Cf. also lex. *pra-vela-* 'a yellow variety of Phaseolus Mungo', lex. *pra-cela-* 'yellow sandal wood' (no doubt misread for *pra-vela-*, cf. lex. *pra-vira-* 'yellow sandal') : lex. *vera-* 'saffron'.

More problematic is Suśr. *pra-cībala-*, a species of plant, because it cannot be specified what kind of plant is meant. Still, it is interesting because of RV X.68.5 *śī́pāla-* 'the waterweed Blyxa octandra', Śaun. 6.12.3, Paipp. 19.4.6 *śī́pālā-* 'a river or pool covered with those water plants'; class. *śaivāla-* n. or

śaibāla-, *śaivala-* (lex. *śepāla-*, *śephāli-*), *śevāla-* (Dharmaśarm.) and *śevala-*. In Haravijaya 40.22 *śebala-* is taken to mean 'slimy' and 'Blyxa octandra' (Schmidt, *Nachträge*). Notwithstanding the doubts expressed by Böhtling-Roth and Bloomfield (1897: 245), the meaning 'slimy, watery', which the commentaries give for *śévala-* (Śaun. I.11.3, Paipp. I.5.4, PārGS 1.16) may be correct in view of the NIA evidence, e.g. Lahnda *chēbal* 'a green slimy waterweed', Sinhalese *sevel-a* 'Blyxa octandra, slime' (CDIAL 12493). In light of the river name *Śaivalā-/Caivalā-*, Suśr. *-cībala-* may be historically identical with *śebala-*, *śevala-* (see p. 23). Indo-Aryan origin, hardly conceivable for Vedic *śīp-/śev-*, is excluded for **cippa-*, **cīppa-*, **cēppa-* 'gummy, slimy' (CDIAL 4819, note MIA *seppha-*). From a formal point of view, Śaun. 6.127.2 *cīpúdru-* (comm. *cīpadru-*), Paipp. I.90.2 *cīpadrā-*, name of a plant (tree?), could be related (with *dr* for *ḍ*, p. 71). Cf. Santali *cepṭhe* 'to stick or adhere to'.]

bhṛ-/bhra- (for **bĕr-*): e.g. *bhṛkuṭī-*, *bhrakuṭī-* 'a frown' (CDIAL 9575), cf. Santali *mēt' kuṭi* 'the eyebrows' (K. 1938: 295ff.). No Vedic example.

ma-, *mu-*: e.g. Manu *ma-tkuṇa-* 'bed bug' (p. 57); Bhāvapr. *mu-kunda-* (lex. *mu-kundu-*) 'the resin of Boswellia thurifera' : lex. *kunda-*, VarBS *kunduru-* (cf. lex. *kuntī-* 'Boswellia thurifera'; see CDIAL 3296, 3298). This disposes of the attempts to explain *kunda-* as an Indo-Aryan word (see KEWA III: 675f.). No Vedic examples (Khila II.1.7 *Mucúkundo mahāmuniḥ*, in a post-Vedic verse, is unclear).

sa-/śa-: e.g. *sa-kuruṇḍa-* 'yellow Barleria' : lex. *kuraṇḍaka-*, *kuraṇṭa-* (CDIAL 3322, 3326, DEDR 1849: prefixation of a Dravidian word?); lex. *śa-kunda-* 'Nerium odorum' (a kind of oleander) : *kunda-*, 'id.'. Unclear is RV *śa-kúnti-* 'bird': if related to *Kunti-* and Kharia *konthe'ḍ* 'bird', it is difficult to explain RV+ *śakúni-* (cf. KEWA s.v.).

sṛ- (*sur-*)/*śar-*: see above *Śṛ́-binda-* and *sṛ-kaṇḍu-*. For *śar-* cf. AV *śar-kóṭa-* : Khila *kar-koṭaká-* (note Przyluski apud Vogel 1927: 214 and see pp. 41, 42).

hi-: e.g. class. *hi-ḍimba-* and *hi-ndolayati* 'swings, rocks along' : *ā-ndolayati*, lex. *a-ndolayati* 'id.' (p. 41).

5. MORPHOLOGY II: INFIXES

In the Austro-Asiatic languages infixation is a common mode of word formation. In the North Munda laguages, such as

Santali, only a few are still productive, e.g. *p* in reciprocal verb stems and in nouns that denote a collection or company, like *ha-p-ṛam-ko* 'the ancestors' : *haṛam* 'old' (Bodding 1929: 177). Instances of various infixes are given by Pinnow 1959: 14. Most infixes consist of a single consonant but combinations of two occur, e.g. Korku *bi-nd-il* : Mundari *bil* 'to spread'.

Words with an infix can accordingly be expected also to occur in Sanskrit, but, although attempts have been made in earlier studies to detect some of them, no certain Vedic instance is available. KS+ *úlmuka-* 'fire-brand' is ambiguous, see EWAia I: 232 and p. 65: **u-m-lu-* or **ummu-*?

6. MORPHOLOGY III: SUFFIXES

Suffixes are clearest in four-syllabic words and when the same root morpheme is also attested with a different suffix. On the whole this category is not so neatly defined as the preceding one because it is often uncertain which suffix (or, to what extent a certain suffix) is non-Aryan and which has been added in Vedic to adapt a foreign word to the requirements of declension, etc. Cf., e.g., Saṁh. *cupuṇī-kā-*, *dṛ́bhī-ka-*, *parpharī́-ka-*, *puṇḍarī́-ka-* n., *bṛ́bū-ka-*. Since suffixation is characteristic of Dravidian (whereas in Munda it is probably often the result of a later, undatable, development) some of the following words may be borrowings from Dravidian but for many of them a different origin is quite possible. The following instances, more or less taken at random, are merely illustrative:

-āla- seems to occur in AV+ *kīlā́la-* 'a sweet drink' (RV *kīlāla-pā́-* X.91.14), *caṣā́la-* (I.162.6) 'top of the sacrificial stake', and *śī́pāla-* (X.68.5) 'a water plant' (p. 43). The suffix may be different from YV *-āla-* (= Drav.-*āḷ*?) in occupational terms, such as VS *kúlāla-*, *kaulālá-* 'potter' (see CDIAL 3354 **kulla-* 'pot') or **mīnāla-* (VS *mainālá-*) 'fisherman' (Drav. *mīṉ* 'fish'?). For *ámbāli* see p. 63. Partly for *-āḍa-*, cf. *kīlā́la-* : Suśr. *kīlāṭa-*, Pkt. *kīlāḍa-*.

-āṣa-, *-īṣa-* and *-ūṣa-*, see below.

-ṭa-: see in general AiGr. II/2: 157, 268, 430, 499. In later Sanskrit a well-known suffix in borrowings from Dravidian, e.g. *kaṅkaṭa-* 'hook' (: Kann. *koṅki*, Tulu *koṅkè*, DEDR 2032), *karaṭa-* 'a low, unruly, difficult person' (Tam. *karaṭu* 'roughness', DEDR 1265), *kardaṭa-* 'mud' (DEDR 1355), *capaṭa-* (= arasaḥ, DEDR 2337), *carpaṭa-* 'lying flat to the head (ears)' (: Tam. *cappaṭi* 'anything flat', DEDR 2331),

piñjaṭa-, lex. *piñjeṭa-* 'the concrete rheum of the eyes' (CDIAL 8150, cf. *piñj-ūṣa-* 'ear-wax', DEDR 4143), *moraṭa-* 'sour buttermilk' (: Tel. *mōru* DEDR 4902), *moraṭā-* (= *mūrvā-* 'bow-string hemp', DEDR 4712), Pali *kasaṭa-* (= Skt. *kaṣāya-*) 'bitter, acid' (DEDR 1249), Pali *cumbaṭa-* n. 'coil, pad of cloth' (DEDR 2677).

Possible Vedic instances are RV *kṛ́pīṭa-* n. (X.28.8) 'firewood', *kévaṭa-* (VI.54.7) 'hole, pit', *bī́riṭa-* (VII.39.2) 'crowd' (see p. 31), *bekanā́ṭa-* (VIII.66.10), name of a foreign tribe (?). See AiGr. II/2: 269. Some of them, however, admit of different analyses: **kṛpi-* can hardly be Dravidian (unless standing for **kVpi-*: p. 82). *kévaṭa-* has been connected with SV VS+ *a-vaṭá-* 'a hole' (K. 1955: 159, like PW): a prefix *ke-* can be a variant of *ki-* (p. 23).

-nas- occurs after a long vowel in the proper names *Píṭhīnas-* (VI.26.6) and *Bhalānás-* (VII.18.7), probably both foreign names, but note the name of a singer *Arcanā́nas-* (V.64.7), with a different accent (composition with *ánas-* is out of the question) and *dámūnas-*, *dráv-iṇas-* (AiGr. II/2: 499).

-ya-: well-known in class. Skt., e.g. *kuvala-ya-* n. 'a blue water-lily' (: *kuvala-*, DEDR 1894), *kaṣā-ya-* 'astringent' (DEDR 1249). See K. 1938: 304, AiGr. II/2: 214. Note RV *kúpa-ya-* (I.140.3) 'flickering' (? EWAia I: 366); *Parṇá-ya-* (I.53.8, cf. X.48.8), name of a hero or demon (VedInd I: 501), mentioned along with *Kárañja-*: a connection with VS 30.16 *Párṇaka-*, name of a jungle man, is just possible; *Púra-ya-* (VI.63.9), PN; *baṣká-ya-* (I.164.5) 'a young animal' (cf. VS MS *báṣkiha-*, p. 57); *Bṛ́sa-ya-* (I.93.4, VI.61.3) PN.; *Vṛca-yā́-* (I.51.13), PN.

-ra-: *āraṅga-rá-* (X.106.10) '(epithet of) a bee' (?); *kīnā́-ra-* (X.106.10) 'ploughman' (cf. *kīnā́-śa-* 'id.' IV.57.8); *phárva-ra-* (X.106.2, p. 42); *rāspi-rá-* (V.43.14), meaning unknown (cf. *rāspi-ná-* I.122.4); perhaps *nīhā-rá-* (X.82.7) 'mist', if a cognate of *nihā́-kā-* (X.97.13) 'gale'; *táska-ra-* 'thief' (p. 67).

-śa-: *Ilībí-śa-* (I.33.12), name of a demon; *kīnā́-śa-* (see above); *palā-śá-* n. 'leaf' (Rigvedic only *a-palāśá-*, *su-palāśá-*, cf. Santali *palha* 'leaf', see KEWA); *Turvá-śa-* = *Turvá-*, PN; perhaps in *tū́rṇā-śa-* (VII.32.4) 'torrent'.

-āṣa- (p. 26), *-īṣa-*, *-ūṣa-*: *jálāṣa-* (?) (II' VII') 'healing'; *Ambarīṣa-* (see p. 6); *āṅgūṣá-* 'song of praise'; perhaps also *pīyū́ṣa-* 'curd' (for Santali *pi̇ñus* see Pinnow 1959: 281, etc.). Although these endings are characteristic of foreign words,

their suffixal character is not always certain. Cases where this is certain are class. lex. *piñjūṣa-*, *peñjūṣā-* 'ear-wax': Kannada *piccu* 'rheum' (also *piñjaṭa-*, DEDR 4143), *gaṇḍūṣa-* 'a mouthful' : lex. *gaṇḍola-* (K. 1968: 80), KS *dālbhūṣī-* versus MS *drumbhūlī́-* (class. *dambholi-*), for which see pp. 26, 61, 75. It should be noted that *-īṣa-* may often stand for *-īsa-*, whereas *-āsa-* and *-āśa-* are sometimes hypercorrect for *-āṣa-* (see p. 26).

-ha- (K. 1948: 99) is comparatively rare, but it is one of the characteristic suffixes: *bárjaha-* (I.92.4) 'udder'; *uṣṇíhā-* (X.130.4, 163.2) 'cervical vertebra'; cf. VS *báṣk-iha-* beside *baṣkáya-*.

Note: the question of whether *-ṛda-* in *Váṅgṛda-* (I.53.8), name of a demon, may stand for (a suffix?) *-aḍa-* or *-iḍa-* (cf. AV *jaṅgiḍá-* 'name of a healing plant') has been discussed above (p. 27). If AV *alagardá-*, name of a serpent-demon (cf. class. lex. *aligarda-*, *aligardha-*), is related to AV *áligī-* (and *víligī-*), used with reference to a serpent (rather than its venom), *-arda-* must be suffixal and can stand for *-adda-* (p. 59).

7. MORPHOLOGY IV: GERUNDS

8. SYNTAX: *íti*

For both points see above, pp. 10-11. The use or non-use of gerunds has long been an important item in typological studies. In the Indian context the idea that the Indo-Aryan gerunds, just as well as their counterparts in the Munda languages, are calques of the Dravidian one would seem obvious, but if one denies this origin (as Tikkanen is inclined to do), the problem remains the same: the model must have been a foreign language.

IV. PERCEPTION AND ADAPTATION OF FOREIGN PHONEMES AND CLUSTERS

Some criteria for determining foreign words

1. VOWELS

A study of the non-Aryan words in the older language reveals such a variety of means to adapt them to Indo-Aryan that a student of the Vedic language is not qualified to pass a judgment on the etymology of more problematic words unless he is fully acquainted with this aspect.

Of the two aspects of adoption of foreign words, viz. perception and adaptation, the perception (including the possibility of mishearing and misreproducing them) is less open to inquiry. It is also the field in which there is most overlapping with the description of foreign phonology (see ch. III). In AV *kúṣṭha-* 'Costus speciosus', for instance, there is no vacillation, as far as the vowel *u* is concerned, but Pali has *koṭṭha-* and Turner (CDIAL 3370) also reconstructs **kuṭha-* and **koṭṭha-* to account for the evidence. In this case the Pali word has probably been borrowed separately at a much later time, and possibly from a different dialect. But there can also have been a different perception of, e.g., an open, low *u* which could be perceived as *o*. Such an interchange sometimes also occurs within Vedic: RV *ogaṇá-* and SV YV *úgaṇa-* must have been adopted separately, as is shown by the different accentuation, and in this case the interchange *u* : *o* may be taken to reflect a dialectal difference in the native language (p. 22), but there is room for different opinions.

2. *ḍ* > *r* AND *ḍ* : *d*

As is well known, Dravidian /ḍ/ used to be rendered by *r* in some other languages. A case in point is Old Greek in the works of geographers, e.g. *Kōrü* for Tam. *Kōṭi*, or *Kottonar-ikḗ* for Tam. *Kuṭṭa-nāṭu*, in which Tamil words intervocalic /ṭ/ was already pronounced as [ḍ]. In much later times the common French pronunciation of [ḍ] was *r* (Vinson 1919: 115). However, it is clear that this cannot account for Skt. *r* in RV *kīrín-*, YV *kubhrá-*, Pāṇ. *nibirīsá-* (p. 31), because Sans-

krit, unlike Greek and French, did have a phoneme /ḍ/. Therefore, *r* may reflect a phonetic development in the source language. Since initial *ni-* of *nibirīsá-* points to a Munda origin (see p. 38), the *r* will in some cases stem from those languages. See p. 31.

3. SURDS, SONANTS, AND ASPIRATES

Among the cases of a possible incorrect perception of foreign phonemes mention must of course be made of the many foreign words which show an interchange of initial surd and sonant, e.g. RV *kartá-* 'pit, hole' ('Grube, Abgrund' Geldner) : ŚB KB GopB *gárta-* 'a hole, cave, grave'. Different theories can account for the double representation of the initial guttural: the words can have been borrowed from (geographically) different dialects, or from the same dialect at different times. We have no means to determine to what extent the perception of the Indo-Aryan speaker (who, in most cases, no doubt was a bilingual) can have played a part in the process of borrowing. Since the role of the source languages must in any case have been predominant, perception as a possible source of an interchange *k*/*g*, etc. cannot be more than a theoretical proviso.

In this connection the problem of the aspirates is of particular importance. It is hardly necessary to call to mind the 19th century attempt to account for initial *kh*, *ph* in Sanskrit by positing preforms **sk-*, **sp-* with early loss of **s-* (AiGr. I: 266, *Nachträge* 148, Pischel 1900: 147-149). The theory was basically only an attempt to project difficult problems back into the prehistory. DEDR contains on p. 760 a list of 20 Sanskrit words and 6 Indo-Aryan reconstructions with initial *kh*, and on p. 762 12 words with initial *ph*, which can all be explained as borrowings from Dravidian. Since aspirate surds did not occur in Dravidian, there can be no doubt about the Indo-Aryan origin of the aspiration. Examples are: RV *khála-* 'threshing-floor' : Tam. *kaḷam*, etc. (DEDR 1376); *khala-* 'rogue' : Kannada *kaḷḷa*, *kaḷa* 'thief, rogue', etc. (DEDR 1372); *khara-* 'hard, harsh, rough' : Telugu *kara* 'sharp', etc. (DEDR 1265). Sometimes there are forms with *k-* by the side of those with *kh-*, e.g. *kaṭa-*, *khaṭa-*, *khaḍa-* 'grass' (probably from Munda, see p. 57), **kubba-*, **khubba-* 'hump' (p. 31). Therefore it may be stated as a general rule that in Indo-Aryan an interchange alone of *k-*/*kh-* or *p*/*ph-* is sufficient as an indication of foreign origin. Cf., e.g., *kacchū-* 'itching, scratching' : *kharjū-* (see p.

59), *kartá-* 'pit, hole' : *khadā-* (p. 73), *kīla-* 'peg' : Śaun. 10.8.4 *khīla-* (CDIAL 3202), *krīḍati* 'leaps, frisks, plays' : **khēḍ-* (p. 77).

Initial *kh* points to a fortis pronunciation in a foreign language, where there was no phonemic contrast with aspirate surds. Such a language is modern Tamil, where initial *k* is 'slightly aspirated' (Firth 1934: ix). See also Beythan 1943: 26, 30, 31 for *k*, *p*, *t* ('im Anlaut leicht aspiriert', resp. 'mit leichtem Hauch'). In Indo-Aryan this was rendered by *k* and *kh*. Indo-Aryan *th* and *ph*, which stand for PIE voiceless stops + laryngeal, are rare in initial position. Initial *th* was even virtually non-existent and was therefore also avoided in loanwords. Thus Tamil Malayalam *takaram*, Kannada *tagara* 'Tabernaemontana coronaria' (DEDR 3002) are rendered by *tagara-* (KauśS. 16.1, Mhbh, Suśruta) and *sthakara-* (KauśS. 35.21) or *sthagara-* (GobhS. 4.2.2.). See CDIAL 5622 (Pali *tagara-*, etc.). That the ultimate origin of the word is Dravidian may be doubted but, like most plant names, it is clearly non-Indo-Aryan.

Br.+ *sthaṇḍila-* n. 'bare, open ground' (CDIAL 13739) may stand for **taṇḍ-* and has been connected with Santali *ṭaṇḍi* 'bare; plain, field, meadow, an open field' (K. 1954: 249). Bodding refers to Mundari *tāṛ*, but *ṭāṛ* (Bhaduri) is rather = Bihari *ṭāṛ* 'stretch of raised infertile soil' (CDIAL 5455).

Class. *sthagita-* 'stopped, interrupted' (BhāgPur. *sthagita-gir-*, cf. *sthagitā Sarasvatī*, quoted but probably misinterpreted by Monier-Williams): see CDIAL 13737 **sthakk-* (**sthag-*) 'to stop, halt' (Pkt. *thakka-* 'stopped, remaining'), 5518 **ḍakk-* 'to stop' and 5420 **ṭakk-*, **ṭikk-*, **ṭēkk-* 'to remain, stop'. Possible cognates can be found in Dravidian (DEDR 3006 : Kannada *taga* 'delay, obstacle', *tage-* 'to stop, arrest, obstruct, impede', etc.) and in Munda (Santali *ṭaṅgao* 'to stop, hinder, obstruct'). The latter may be a loanword, but it is certainly different from Hindi *ṭāgnā* 'to hang up' (Bodding).

Lex. *sthaga-* 'cunning, sly, fraudulent, dishonest' : Pkt. *ṭhaga-* 'thief', *ṭhagiya-* 'deceived'. No doubt from CDIAL 5489 **ṭhagg-*, **ṭhakk-*, **ṭhaṅg-* 'to cheat' (Bloch 1920: 340, K. 1954a: 248, 1955: 169); wrongly questioned by Turner, l.c.

Lex. *sthika-* 'buttocks' has been connected with Santali *ṭiki* 'buttocks, rump' (K. 1954a: 249).

A doubtful instance is class. *sthagayati* 'hides', wrongly identified with *sthagita-* 'stopped' (CDIAL 13737). The traditional connection with Greek *stégō* 'to keep out', Latin *tego* 'to cover' (PIE **(s)teg-* Pokorny 1013) does not account for

sth- in Skt. and nothing points to a pre-form **sth₁-eg-*. Much more likely, just as for *sthagayati* 'to stop', is a foreign origin but evidence for **ṭhag-* is lacking so far. However, just as *sthagita-* 'stopped' can ultimately be connected with CDIAL 5518 **ḍakk-* 'to stop', and *sthaga-* 'fraudulent, sly, dishonest' (Pkt. *ṭhaga-* 'ṭhag, dhūrt, vañcak') is ultimately a cognate of 5543 **ḍākka-* 'robber, robbery', so *sthagayati* 'covers, hides' can be connected with CDIAL 5574 **dhakk-*, **dhaṅk-* 'to cover' (also 'to shut', cf. Skt. *ḍhakkana-* n. 'shutting (of a door)' (Śīlāṅka), Pkt. *ḍhakkai* 'shuts'). Note the similar use of *sthagita-* in MārkP *sthagitā- dvār-* 'a closed door' (PW).

See in general for *sth-* and *sph-* K. 1954a: 248-250. As for *sph-*, the occurrence of double forms of the type *sphaṭa-*, *sphuṭa-* : *phaṭa-* 'a snake's expanded hood', shows that also *sph-* can stand for *p-* in foreign words.

Note further the interchange of voiced aspirates with unaspirated phonemes, e.g. *bh-/b-* p. 63, also *gh-/k-* p. 23, etc.

4. GEMINATES

a) General remarks

This section may turn out to be the most important because, as a result of the many different ways in which geminates in foreign words have been handled, words have often been altered to such an extent that those not acquainted with these processes must find it hard to recognize the genetic identity of such phonetic variants. Apart from the fact that this problem has not been recognized in earlier studies (K. 1955: 144, 160f., 168ff.) and that it has never been systematically discussed, there is the additional difficulty that the rationale of the different treatments (if it exists) escapes us. Thus class. *Pulkasa-*, *Puṣkasa-*, *Pukvasa(ka)-* and *Pukkaśa-* occur side by side, and it can be argued that they are all free variants of *Pukkasa-* (p. 56). The mss. of the Bṛhatkathāślokasaṁgraha show a promiscuous use of the various forms of *pakkaṇa-* 'the hut of a Cāṇḍāla, a village inhabited by savages' (see below, p. 56). In Śaun. 8.7.2 some manuscripts read *guṣpitá-*, others *gulphitá-*, and the commentator was fully aware of the fact that the first was a synonym of the second (which was apparently the more common one). Cf. ad Śaun. 7.95(90).1: *guṣpatir gulphatiparyāyaḥ 'guṣpati* is a synonym of *gulphati'*. It would be fully understandable if an Indo-Europeanist, accustomed

to working with strict phonetic laws, would be unwilling to accept the idea that these two words are historically identical. It should be realized, however, that in studying the different ways in which foreign words have been adapted, the methodological presuppositions are basically different from what he is accustomed to. With regard to this part of the vocabulary the traditional approach of the Indo-Euopeanist is simply not valid and no judgment on the etymology (or even the structure) of such a word can be passed unless one is acquainted with what variation is possible in this field.

In view of these methodological problems, therefore, a rather indirect disposition of the facts has been chosen. Since the Rigvedic material is too scarce to demonstrate the basic processes, it is necessary to quote also the evidence of later Vedic and, to some extent, of the classical language. Some Vedic cases that can be expected to be moot points (such as *guṣpitá-*) will be discussed with some philological details. After this exposition of possible transpositions (e.g. *kṣ/ṣk*, *kv*, *lk*, *tk*, *ṭk*, *rk* for **kk*) the Vedic material known to me will be given in a brief, factual way (p. 67). Again, the survey does not claim to be exhaustive.

* * *

As is well known, geminates (except *tt/ṭṭ*, *nn/ṇṇ*, *ss*) are rare in Sanskrit. The PIE tendency to shorten long consonants (PIE **ési*, Skt. *ási*, Greek *eĩ*, for **és-si*) can still be observed in historical times in Ved. *áṁhasu*, Av. *ązahu*. It may be noted in passing that RV *arámati-* (Av. *ārmaiti-* for **aramati-*) and *arámaṇas-* (VI.17.10) are most naturally explained from **arám-mati*, etc. Specifically Indo-Aryan are clusters before *-bhiḥ* (*-bhyaḥ*, *-su*) and in future stems (where shortening in a morpheme boundary would have made a monosyllabic stem or root unrecognizable). Instead of **a(b)bhyas* (Avestan *aiβiiō*) and **a(b)bhiš* (Old Persian *abiš*), Vedic has the new formations *adbhyáḥ* and *adbhíḥ*. More incidental are TB *saṁsṛ́dbhiḥ* (stem *saṁsṛ́p-*), TS *triṣṭúgbhiḥ* (stem *triṣṭúbh-*, see p. 85) and class. *vatsyāmi* (for **vas-syāmi*). See AiGr. III: 241.

In a similar way clusters have been introduced as substitutes for geminates in foreign words. That they actually stand for geminates can sometimes only indirectly be demonstrated. Such cases as class. *mudgara-*, *mukula-* n. 'bud' : Kannada *moggu*, Malayalam *mukiḷ* (DEDR 4893) are rare.

It should finally be noted that a stop after a prefix is often

long, e.g. lex. *u-ccitiṅga-*, *ci-ccitiṅga-*, names of venomous insects : lex. *citiṅga-* (p. 42). There are, however, exceptions, e.g. lex. *i-cikila-* 'mud, mire' : lex. *cikila-*, and the Deśīnāmamālā cites, as prefixed forms of lex. *ḍulī-* 'tortoise', the Prakrit words *ṇa-ḍḍulī-* and *ṇa-ḍulī-* (CDIAL 6400). As noted above (p. 41), this accounts for such cases as lex. *tīra-* 'tin' : lex. *ka-stīra-* n. 'id.'; lex. *tumburu-* n. 'coriander' : Pāṇ. *ku-stumburu-* n.; lex. *kuṇa-* 'bed bug' : lex. *u-tkuṇa-*, *ma-tkuṇa-*; RV *Káṇva-* : *Prá-skaṇva-*, name of a member of the Kaṇvas.

The prefixation points to Munda as the probable source of origin, but gemination was, as far as can be seen at this moment, uncharacteristic of Austro-Asiatic. The phenomenon, therefore, has provisorily been attributed to false perception but it deserves a more profound investigation than is possible here.

This study is, indeed, confined to what may be considered *Sanskrit* phenomena. Other aspects, which sometimes complicate matters, must be ignored here. Comparatively simple is, on the Dravidian side, the occurrence of double forms with *rC* (*r̲C*, *l̲C*) versus *CC* in Kannada, which are due to a secondary assimilation after elision of a vowel, e.g. Tam. *aruvi*, *arivi* 'waterfall' : Kann. *arbi* 'a torrent', *abbi* 'a tiny waterfall' (DEDR 226), Tam. *al̲uttu* 'to press down, immerse' : Kann. *aṛdu*, *addu* 'to immerse, dip' (DEDR 285); Kann. *arpu*, *appu*, Tulu *appiyuni* 'to embrace', Kann. *aḷpu*, *appu*, *appuge* 'an embrace' (DEDR 158). A better insight into the historical development of Kannada is needed in order to account for such cases as Skt. lex. *karkaśa-* 'sword' : Kann. *kakkaḍe*, *karkaḍe* 'a kind of weapon' (Malayalam *kakkaṭa* 'dagger'). See DEDR 1076. Different, however, is Mal. *vīrku-ka* 'to swell, be inflated' : *vīṅṅu-ka* 'to swell, grow large', *vīkkam* (Tam. *vīkku*, *vīkkam*) 'swelling, pride', etc. (DEDR 5448).

Of greater importance is the Munda evidence. Not every user of DEDR will be aware of the fact that Burrow and Emeneau understandably and rightly ignore the Pan-Indic aspects, but that their dictionary, by omitting all references to Munda, sometimes inevitably creates a false perspective from a Pan-Indic point of view. A case in point is DEDR 2331: VarBS *carpaṭa-* 'lying flat to the head (of ears); palm of the hand, thin biscuit of flour' (CDIAL 4696) : Tam. *cappaṭi* 'anything flat', Kann. *cappaṭe*, *capaṭe*, *appaṭe* 'flatness, flat'. In view of the whole evidence, Kati *čapä* 'slap', Sindhi *capo* 'palm of the hand', which point to **carpa-*, may be secondary. Semantically they

are reminiscent of Skt. *capeṭa-* 'slap with open hand' (CDIAL 4673), which has *cap-*. Skt. *carp-* might be explained as standing for a geminate (p. 61) or as belonging to the category discussed below (p. 74). In Munda, however, one finds not only Santali *cạpi* (*cạpiạ, cạpio*) 'flat-nosed, flat (wood)', *capṛa* 'flat', *caple* 'with a flat bottom', but also *cạrpiṛ* 'flat', Mundari *carpa holoṅ* 'a thick, flat cake', *carpa* (*carpa'd*) 'to tread on something so as to flatten it'.

On the other hand, one cannot ignore the existence of Skt. *cipiṭa-* 'flattened, pressed close to the head (ears)', *cipiṭa-ghrāṇa-* 'flat-nosed' : Santali *cẹpọ, cẹprẹ* 'flat-nosed', *cẹpṭẹ* (*cẹpṭhẹ, cẹpẹl, cẹplẹ, cẹplọ, cẹplọṅ*) 'flattened, flat', Mundari *cepe'd* 'flat', *cepo* 'depressed', *copo'd* 'to press down, make flat', Birhor *cepṭa* 'flat' and Kharia *cepo?ḍ* 'flat'. See Pinnow 1959: 240 and cf. Nepali *cepṭo* 'flat', Bengali *cepṭā* 'flattened' (hardly from **cippiṭṭa-*, CDIAL 4818, but rather borrowed direct from Munda, see p. 37). In Sanskrit, however, also *cirpita-* 'pressed flat, squeezed' is once attested as a *laukika* word in the commentary on Suśruta (see Katre 1957: 237). In Munda such an insertion of *r* or *l* is not rare (see above Santali *cạrpiṛ*), but, although it is obviously of relevance to our subject, it will be ignored here, because it would require a separate study.

b) *kk*

An instructive case, because it is most amply documented, is the name of a jungle tribe: class. *Puṣkasa-, Pulkasa-, Pukvasaka-, Pukkasa-, Pukkaśa-*, lex. *Bukkasa-*, Pkt. *Bokkasa-* (for details see K. 1987: 191). *Bokkasa-* survives in Nepali *bokso* 'wizzard' (CDIAL 9313). That *ṣk* stands for *kk* cannot be questioned, cf.

VarBS *dreṣkāṇa-* : *drekkāṇa-* (*dṛ(k)kāṇa-*) 'the third part of the zodiac, a demi-god presiding over it', which renders Greek *dekānós* '*decan*, divinity presiding over ten degrees of the zodiac'. For *dr-* in *drekkāṇa-* see p. 74. The mss. have the variant readings *dreṣkāṇa-* and *dreṣkaṇa-*.

Class. *Turuṣka-* (Rājatar., Kathās., Prabodh.) 'Turk' by the side of *Turaka-, Turakva-* (and *Turaṣka-*, v.l. at Mhbh. 12.65.145*), which prove that '*türk*' has been adopted as **Turakka-/*Turukka-*.

Class. *śaṣkuli-* or *śaṣkulī-* (KauśS. Mhbh.+) 'a large round cake composed of ground rice, sugar and semamum, and

cooked in oil', with the variants *śaskuli-* (Monier-Williams), *śakuli-* (Yaśastilaka), *śakulī-* (v.l. at KauśS. 138,2, also lex.). Of interest are *śakkuli-* (Siddhāntakaumudī, lex.) and *cakkulī-* (cited by Naik, see K. 1966: 222). Together with Kannada *ciguḷi* 'a ball made of fried gingilli-oil seed mixed with jaggery' (DEDR 2490) they show that Skt. *śaṣkuli-* stands for *śakkuli-*.

AV KS 37.9 (89,7 and 9) *puṣkalá-* 'splendid' (for which KS 37.9 (89,5), TB II.7.15.1 have *viśvárūpa-* as text variant): it has long been surmised that the word is somehow connected with *pudgala-* (Mārk.Pur.) 'beautiful', see KEWA II: 305, 317. The two words can be traced back to **pukkal-/*puggal-*, see p. 58 and note Pkt. *pukkala-* (also *pukkhala-*).

Paipp. *Viṣkali-* 'name of an accouching deity': in a charm for easy parturition occurs the line (Saun. 1.11.3cd, Paipp. 1.5.3cd) *śrathāyā sūṣaṇe tvám áva tvám biṣkale sṛja* 'Do thou, O Sūshaṇā, loosen the womb, do thou, o Bishkalā, let go (the embryo)!' (Bloomfield 1897: 99). Whitney guessed that *Biṣkalā-* (or *Biṣkali-*, comm.) was the name of an organ. More likely, however, the commentator and Bloomfield were right in taking it as the name of an accouching deity (*prajayanitrī devatā*). The Tamil Lexicon, p. 3746, records a verbal root *vīkku-* 1. 'to fill', 2. 'to urge, force out'. Here two different roots have been mixed up. For the first meaning see DEDR 5448(a). The second verb must be connected with *vikku-* 'to hiccup, bring out with interruptions of hiccups', *vikkal*, *vikkiḷ*, *vikkuḷ* 'hiccup', Kann. *bikkuḷiṣu* 'to throw up, vomit, eject', Kui *veka* 'to cough', etc. (DEDR 5383). Paipp. reads *viṣkale* and since, parallel to Kann. *bikkuḷi* 'throwing up or vomiting' : Tam. *vikkuḷ*, there may have existed **vikkali* : Tam. *vikkal*, *Viṣkali-* 'the deity who forces out the foetus' must stand for **Vikkali-*. See K. 1991 (forthcoming).

Whereas there can be no doubt as to *Puṣkasa-* standing for *Pukkasa-*, this fact admits of different interpretations. Since the earliest attested form is VS ŚB TB *Paulkaśa-*, the traditional explanation is that *Pukkasa-* is a MInd. form (from *Pulkasa-*) and that *Puṣkasa-* is a hyper-Sanskritism, which stands for *Pukkasa-* (AiGr. I, *Nachträge* 75). The problem, accordingly, is whether the form with *kk* is Middle Indic or of foreign origin. The following arguments plead in favour of the last possibility (see for the general problem and for detailed references K. 1959b: 166f., 1987: 191):

1. Some of the words concerned are demonstrably of foreign origin, e.g. *pakkaṇa-* 'hut of a Cāṇḍāla, village inhabited by savages': in the Bṛhatkathāślokasaṁgraha the word is promiscuously written as *pakkaṇa-* (e.g. 3.32, 45, 46, also Daśakumāracarita p. 8,10 ed. Agashe) and *pakṣaṇa-* (3.11, 22, 24, 43), whereas the Kādambarī has everywhere *pakvaṇa-*. It is clearly a 'native' word, which has been explained as a Dravidian loanword (cf. Tamil *pākkam* 'sea-side village, etc.', Telugu *pāka* 'hut, hovel', DEDR 4047). The same is true of *śaṣkulī-* (*śakkuli-*, *cakkulī-*), *Turuṣka-* and *Viṣkali-* (see above).

2. Apart from the fact that most words must apparently or demonstrably have been adopted on Indian soil, there is a chronological argument. Since *ṣp/pp* is fully parallel to *ṣk/kk*, this may be illustrated by an example with *ṣp*. The relation between *guṣpitá-* 'intertwined' (RV Saun. Paipp. MS) and class. *guph-*, *gumph-* ('*granthe*' Dhātupāṭha 6.31) is still a problem (see EWAia I: 492). As will be argued below, *guph-* cannot be a Middle Indic development of *guṣp-* (PW II, col. 766, AiGr. II/2: 557, 931). It should be noted thet *guph-/gumph-* does *not* occur in Pāṇini: as is well known, the 'scholia' on Pāṇini which PW quotes are the commentaries by two pandits in the Calcutta edition of 1809 (see Böhtlingk, Pāṇini II, Bonn 1839, Einleitung xxxviff.). Apart from *guphita-* in Dhūrtasamāgama, (nearly?) all class. forms are from *gumph-*, e.g. *gumphati* (Naiṣadhacarita 8.82), *gumphita-* (Kathāsaritsāgara 56.245, 73.21) and further *gumpha-*, *gumphaka-*, *gumphana-*, etc. If *gumph-* were a Prakritism from *guṣp-*, it would be impossible to account for the variant *gulphitá-* (see p. 61). For chronological reasons one cannot assume RV+ *guṣp-* > MInd. **gupph-* > AV (hypersanskritic) *gulph-*, since *gulph-* occurs as a variant reading of *guṣpitá-* in Saunaka and is, at any rate, the common form in the Sūtras. If *guṣp-* and *gulph-* cannot stand for MInd. **gupph-*, the only solution that remains is to take both as adaptations of a *foreign* word **gupp-/*gupph-* (K. 1955: 160), which also accounts for *gumph-* (prenasalization). The interchange *p/ph* is in itself an indication of foreign origin (see p. 49).

For these reasons *Puṣkasa-* and *Pulkasa-* (names, for which an Indian origin is self-evident) must both be adaptations of *Pukkasa-*. There remains the problem of *Pukvasaka-*, which is the normal form in Bṛhatkathāślokasaṁgraha (e.g. 5.201, 203, 211, 215, etc.). Although *kk* and *kv* are often mixed up in Devanāgarī script, in foreign words *kv* can be an authentic

form, as it is paralleled by *ṭv* for *ṭṭ*, *lv* for *ll*, etc., e.g. *khaṭvā-* 'bedstead' : *khaṭṭī-*, *khaṭṭikā-* 'a bier' (Tamil *kaṭṭil* 'cot, bedstead', DEDR 1145). Thus *cikva-* 'flat-nosed' (: *cikka-*, *cikṣa-*) is probably correct. For *lv* see p. 65. In New Indo-Aryan one meets with Bihari *malwā* 'box for oil', Guj. *mālvũ* 'earthen pot for whey' : Skt. *malla-* 'bowl' (CDIAL 9909), etc.

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Whereas in *-iṣk-* and *-uṣk-* the *ṣ* is regular, *-aṣk-* is more characteristic. Note *śaṣkuli-* (p. 54) and the following:

RV *baṣkáya-* 'grown up (?)' in 1.164.5 *vatsé baṣkáye* 'the grown up calf'; also 'calf', cf. Paipp. 13.5.6 *vaśā 'si suva sthaviraṁ vipaścitam, vaśā 'si suva baṣkayaṁ divispṛśam.* The derivative *baṣkayaṇī-*, apparently 'mother of a young animal' (for the exact meaning see CDIAL 9181), needed a specification, cf. Pāṇ. *go-baṣkayaṇī-* 'cow with a young calf'. With a different suffix: VS (MS) *báṣkihān* (viz. *ajā́n*). Whatever the precise meaning (Uvaṭa: *ciraprasūtān*), it refers in any case to young animals. If from **bakka-*, it may be connected with *barkara-* (ĀpŚS, KātyŚS) 'kid, lamb' (lex.: 'goat, any young animal'). Lahnda *bakk* 'fawn' and WPah. *bākṭu* 'kid' point to **barka-* (CDIAL 9152). Tamil *vāṟkali* 'goat' (from **vālkali*) may be related but does not clear up the origin.

Note Weber's identification of *Vā́rkali-*, name of a teacher (ŚB 12.3.2.6), with *Bāṣkali-*, id. (VedInd II: 288) and *kṣoḍa-* 'post' (CDIAL 3748, DEDR 1676): Mar. *khuṭā* (CDIAL 3893).

Note also Kannada *kikkinda*, *kiṣkinda* 'closeness, narrowness, pressure, a crowd' (DEDR 1509). An isolated instance?

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Another method of breaking up the geminate *kk* was the cluster *tk*. Cf. class. Skt. *matkuṇa-* 'elephant without tusk', which stands for Drav. **mokk-* (Tel. *mokkaḍi* 'elephant with a short tusk', Tam. *mokku* 'bluntness', CDIAL 9748, DEDR 5106). The same procedure was applied to the prefixed word *ma-tkuṇa-* 'bed bug' (cf. *u-tkuṇa-*, *u-ṅkuṇa-*, *o-kaṇa-*, *o-kkaṇī-*, *kuṇa-*, Pkt. *ḍhe-ṅkuṇa-*, CDIAL 1728, 9747). Gemination after a prefix (see p. 53) is also found in *u-tkaṭa-* 'Saccharum sara or a similar grass', lex. *i-tkaṭa-*, *i-kkaṭa-* 'a kind of seed or grass', lex. *kaṭa-* 'grass, Saccharum sara', *khaṭa-* 'a fragrant kind of grass', etc. (K. 1964: 324, cf.

CDIAL 2630, 3769, 3917). Telugu *gaḍḍi*, *gaḍi*, etc. (mainly in North Dravidian, see DEDR 1158) must be borrowings (p. 42).

In the same way *dg* occurs by the side of *gg*, *ṅg*, *k* in *mudgara-* : *mukula-* n. 'bud' (: Tam. *mokkuḷ*, Tel. *mogga*, *mogaḍa*, CDIAL 10146, DEDR 4893); *madguśa-* : *magguśa-* 'mongoose' (DEDR 4900); *madgura-* : lex. *maṅgura-* 'a fish, Macropteronatus magur' (CDIAL 9781); VS *mudgá-*, lex. *mudgaṣṭha-*, *mukuṣṭha-*, etc. 'bean' (CDIAL 10148, 10198). The interchange *mudg-/muk-* in the last word (cf. above *mudgara-* : *mukula-*), which has not yet been explained, merely reflects a Dravidian phenomenon. Cf., e.g., Kannada *moggu* : *muguḷ*, *mugaḷu* 'bud' beside Skt. *mudgara-* : *mukula* 'id.'.

Since old Indo-Aryan words with *tk* are comparatively rare (e.g. RV+ *átka-* : Av. *aδka-* 'garment, mantle'), and *tk* is even avoided (Ved. *vṛkká-* 'kidney', for **vṛtka-*, cf. Av. *vərəδka-*), *tk* and *dg* are in general indications of a foreign origin. In some cases there exists a nasalized variant (*-aṅk-*, *-aṅg-*, etc.), which either reflects a different Sanskritization of *-kk-* and *-gg-* or is of Middle Indic origin, e.g. BHSkt. *puṁgala-* 'person, soul, etc.' for *puggala-* (Pali *puggala-*, Skt. *pudgala-*); *vaṅka-* 'crooked' for *vakka-* (Pali id.), Skt. *vakra-*; *muṅga-* 'bean' for *mugga-*, etc. See Edgerton 1953a: 23, and for Pali Geiger 1916: 43.

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Finally, there are some instances with *lk* and *rk*. As for *lk*, it was argued above (p. 55) that *Pulkasa-* and Ved. *Paulkasá-* do not represent the original form of the word but that they stand for *Pukkasa-*, just as AV *gulphitá-* must stand for **gupphitá-* (see p. 61). In the same way ŚB *bálkasa-* n. 'dregs, sediment left after the distillation of ardent spirits' : lex. *vakkasa-*, Suśr. *vakvasa-* 'a particular intoxicating drink' stands for **bakkasa-* (p. 33).

Examples of *rk* are *markoṭa-pippīlikā-* 'black ant' : *matkoṭaka-* 'white ant' (CDIAL 9749); *kurkuṭa-* 'cock' (Pañcat. III.118 Kosegarten, Pūrṇabhadra 194,21, Yaśastil. 1,144,4) : *kukkuṭa-* (Pañcat. III.115 BSS[4], Chowkhamba 1930); probably *barkara-* 'kid, lamb' : *baṣkáya-* (p. 57).

Less clear is the word for 'dog': *kurkurá-* (Śaun. 7.95(100).2, VarBS 8.28.9 [with v.l. *kukkura-*], Pañcat. II.97 Koseg. [different from II.90 BSS[4], II.97 Chowkhamba], Amara, Hemacandra) : *kukkura-* (Mṛcch. II.12 [not in Cārudatta], Hitop. 51,15 and 16; 52,4 Peterson), **kuṅkara-* (in Lahnda *kuṅgrā*) and *kukura-* (Uṇādis. 1.41), *kukura-jihvā-* 'dog's

tongue' (name of plants and a fish). As for *kukkuṭa-* (twice in Cāṇakya), it may contain the suffix *-ṭa-* (p. 45). Note also **karkuṭaka-* in Pašai and Dardic (CDIAL 2824). By the side of *kukkura-* there may have existed Skt. **kukka-*, cf. Pkt. *kukka-*, Hindi, Sinhalese *kukkā* 'puppy' (CDIAL 3206). The words are traditionally explained as onomatopoeic but, if so, this does not decide their origin (EWAia I: 372). Dravidian **kukka-* (recent?) occurs in Tam. *kukkal*, *kukkaṉ*, Telugu *kukka*, which can hardly be connected with the word group of Tam. *kurai* 'noise, roar, shout' (DEDR 1796). *kukkura-* could be Middle Indian for *kurkura-* but this cannot account for *kukura-*. Even if the group is onomatopoeic, like **kutta-* (CDIAL 3275) and **kuccara-* (CDIAL 3219), the various words can stand for **kukku-* and **kukka-*.

An instance of *rg* for *gg* is class. *nirguṇḍī-* 'the shrub Vitex negundo' : Kannada, Tulu *nekki* (DEDR 3781).

Note *ḫk* for *ṣk* (e.g. KauśS 138.2 *śaḫkulyaḫ*). It will be discussed below, p. 69.

c) *cc*, *jj*

For *cc* virtually the only dissimilation that can be expected is *rc*. It occurs in KS TS *kūrcá-* 'bunch, tuft, brush' (by the side of Suśr.+ *kūcī-* 'a paint brush, pencil') : Tam. *kuccu*, etc. (DEDR 1639). Similarly lex. *kharjū-* 'itch' (CDIAL 3827) by the side of *kacchū-*, Pkt. *khasa-* (CDIAL 2621) and Skt. *kaṣati* 'scratches, rubs'. Cf. Kannada *kajji*, *gajji* 'scab, itch', Telugu *kasi*, Kui *kasa*, etc. (DEDR 1104, KEWA I: 139, 190, 303). Note the interchange *k/kh* (p. 49).

d) *tt*, *dd*, *ṭṭ*

Substitutes for *tt* are less numerous than those for *kk*. A case of *rt* (RV *gárta-*) will be quoted below in the list of Vedic evidence; see pp. 36, 68.

A late Sanskritization *artikā-* 'elder sister', for *attikā-* (*antikā-*), only found in a commentary on Amara, is of no importance. Rare traces of a similar dissimilation incidentally occur in Tulu (Dravidian), e.g. *arti* 'Ficus racemosa' for Tam. Tel. *atti*. This must be accidental.

A parallel case with *rd*, *nd* for *dd* is: TB+ *balivárda-* (ŚB JB *balīvárda-*, Pkt. *balīvadda-*) 'ox, bull' : KS

balivanda-. The word **balivadda-* probably contains a suffix *-adda-*, cf. Pkt. *bali-dda-*, *bala-dda-* and **bal-illa-* (in Pkt. *baïlla-*, *bellaga-*, CDIAL 9175), but *-v-* then remains unexplained. Turner, however, refers to Nahali *baddī*, which would account for *varda-* but introduces morphological problems, since *bal-* apparently expressed the meaning 'bull' (cf. *bali-dda*, etc.). Note also **pāḍḍa-* in Sikalgārī *pāḍo* 'bull' (CDIAL 14684).

Other instances of *rd* are: Suśr. *alagarda-*, lex. *alagardha-* (Maithili *alādh*), *aligarda-*, *aligardha-*, etc. 'water-snake, Coluber naga' (CDIAL 699) : Saun. *āligī-* (beside *viligī-*; Paipp. 8.2.6 Kashmir *ālakā-*), name of a serpent; Hemac. *kūrdāla-* 'spade, hoe' (by the side of *kuddāla-*, etc., CDIAL 3286) : Kannada, Telugu *guddali*, Tamil *kuntali* (DEDR 1722).

A doubtful case, but which may still be of interest, is *kūrdati* 'leaps, jumps', a word of the later classical language: Harivaṁśa, Pañcatantra II (BSS[4] 19,19, 20,5 *kūrdana-*, 19,22 *utkūrdita-*, 15,2 *prakūrdate*), also in MIA and NIA (Hindi *kūdnā*, etc., CDIAL 1730, 3412; for Marathi *vākudṇĕ* see 12185). The Dhātupāṭha I.21-24 lists successively *kūrd-*, *khūrd-*, *gūrd-*, *gūd-* '*krīḍāyām eva*'. Unrelated is in any case *gūrda-* (KS 39.5: 123,6-7, ĀpŚS 16.30.1, etc.): perhaps 'Speise' (Caland, cf. JB 3.171 *gūrda eva nāma mahad annādyam*). Regardless of the variants in the Dhātupāṭha a PIE origin is, in view of its late emergence, doubtful. Turner refers to Burrow's connection with Tam. *kuti-* 'to jump, leap, etc.', Kann. *gudi-* 'to jump, stamp, make a noise with the feet', etc. (abandoned in DED 1419, DEDR 1705). It still merits consideration but evidence for **kūdd-* is lacking, except in Kuṛux *kuddnā* 'to move about'. Cf. Telugu *guttu* 'a leap'.

More common is *st* for *tt*: Pāṇ. *ku-stumburu-* n. : *tumburu-* n. (Suśruta *ku-stumbarī-* : lex. *tumbarī-*) 'coriander' (CDIAL 3380); lex. *ka-stīra-* n. 'tin' : *tīra-*, *tīvra-*, *cīra-*; AV *kúṣṭha-* 'Costus speciosus' : **kuṭha-*, **koṭṭha-* (CDIAL 3370); Suśr. *kuṣṭha-* n. 'leprosy' : **koṭha-* n., **koṭṭha-* (CDIAL 3371). Thus AV *Agásti-* may stand for **Agatti-*, but Tam. *akatti* 'West Indian pea-tree', although a possible indication of South-Indian origin, does not prove anything in this respect.

For *ṭṭ* > *ṭv* (class. *khaṭvā-*) see above, p. 57.

e) *pp*

Substitutes for *pp* are: *tp*, *rp*, *lp* and *ṣp*. TS *śítputá-* will be discussed below (p. 68). For *rp* cf. lex. *kūrpāsa-* n. 'the inner part of a coconut' : Tam. *kopparai*, *koppari*, etc. (DEDR 2105). But lex. *parpaṭa-* 'thin cake made of rice or pease-meal' : Tam. *pappaṭam*, etc. (DEDR 3928) may belong to the category *CVrCVṭ* (p. 74) and for *carpaṭa-* 'lying flat to the head (ears)' : Tam. *cappaṭi*, etc. (DEDR 2331) see above (p. 54). Note also *rb* for *bb* in ŚārṅgS. *barbura-* (= *babbula-*) and lex. *varvūra-* (= lex. *vavvola-*, Madanav. *vavūla-*) 'Acacia arabica' (CDIAL 9148). For Guj. *bāvaḷ* Turner posits a pre-form **barvula-*.

For *lp* cf. lex. *talpa-* (**tarpa-*, CDIAL 5726) 'raft, ship' : Tamil *teppam*, *teppal* 'raft, float' (DEDR 3414, KEWA I: 486). Here also belongs *dālbhūṣī-* (KS 29.2: 104,3) 'a mythic bow, one used for magical purposes' (cf. MS *drumbhūlī́-*, see p. 75) and RV AV YV *bálbaja-* 'Eleusine indica' for **babbaja-*, but, even if related to AV *bajá-* 'a certain plant', its morphological aspect is not quite clear.

More important for Vedic is *ṣp* for *pp*. A well-known instance is Śaun. 9.9(14).20,21 *píṣpalam*, 6.109,1 *piṣpalī́-*, 2 *piṣpalyàḥ*, MS I.2.2 (11,7) *supiṣpalā́(ḥ)* (v.l. of the Padapāṭha). There can be no doubt that these variant readings for RV Paipp.+ *píppala-* etc. are secondary. Turner's suggestion that CDIAL 8208 *piplu-* '*berry' contains the same basic element as *pippal-* is attractive, but the meaning 'berry' is based on NIA evidence (Lahnda, Panjabi). The variant readings have probably crept in in post-Vedic times but they must at one time have been dialectal variants and Pali *pipphala-*, *pipphalī-* (as against Pkt. *pippala-*, etc.) may reveal the geographical origin. Note Tibetan *pi-spal* 'Ficus religiosa' (Laufer 1916: 458).

On the other hand, it is fairly certain that *guṣpitá-* 'intertwined, interlaced' is an authentic Vedic word. It is attested at RV VIII.40.6, Śaun. 3.7.2, Paipp. 3.2.2 (and in a Rigvedic repetition), MS I.2.2 (11,8; see p. 69 for Satavalekar's spelling *guḥpitám*). The divergent form *guṣṭitám* (ŚBM 3.2.2.20, not in ŚBK) may be due to dissimilation (p. 86). The form may not have been isolated, for it seems to survive, far to the West, in Panjabi *guṭṭhaṇā* 'to be twisted' (CDIAL 4205 B1). Instead of *guspitám* a variant reading *gulphitám* occurs in Śaun. 3.7.2 and further in ĀpŚS 10.10.3 (see Caland's note), 13.7.16, Hiraṇyakeśi ŚS 10.2.12, etc. Note also Sū. *vigulpha-* 'abundant,

plentiful', ĀśvŚS *(upa)vigulphayati* 'to add abundantly'. The commentator ad Śaun. 7.95.2 was, indeed, more conversant with *gulph-* (p. 51). The two forms were exclusively in use in Vedic. The classical language has only *gumph-*, with one or two instances of *guph-* (see above, p. 56), but the Dhātupāṭha 6.31 records both roots. As was argued above, Ved. *guṣp-* and *gulph-* must be adaptations of **gupp-/*gupph-*. Note that Paipp. 4.34.2 Kashmir *gusthitam* is a faulty reading for *gupitam* (Orissa mss.), which corresponds to Śaun. 4.25.2 *yupitam*, and that Bangani *guplo-*, *guphlo-* 'tumefaction' are semantically too divergent for connecting them with Skt. *guph-*.

While /ṣ/ after *i* and *u* needs no comment, things are different with YV+ *śáṣpa-* n. 'young or sprouting grass' and class. *bāṣpa-* 'tear, steam, vapour'. For the latter word, however, see CDIAL 9223 (from **bāṣman-*?). *śáṣpa-*, however, can actually stand for **śappa-*: Burrow connected it with Tulu *coppu*, *soppu* 'grass, foliage', but the ordinary meaning of this word-group is 'leaf' (DEDR 2673).

Incidentally, mention may be made of the epithet of one or more Rudras, viz. YV *śaṣpíñjara-* (TS *saspíñjara-*). Its meaning is said to be 'gelbrötlich schimmernd wie ein junger Rasen' (PW) and it is generally taken to stand for **śaṣpa-piñjara-* (AiGr. I: 279, KEWA III: 319). It should be noted, however, that the meaning assigned to it was exclusively based on Mahīdhara, accordingly ultimately on Uvaṭa's commentary on VS 16.17: *navaprarūḍhāni tṛṇāni śaṣpam, tadvarṇāya.* It must be objected that *piñjara-* not only means 'rötlich gelb' (*pītaraktavarṇa-*, as Mahīdhara has it) but also, and particularly, 'goldfarbig' (cf. *suvarṇa-piñjara-* Mṛcch., *cāmīkara-piñjara-* Raghuv.). Can young grass be said to be yellowish-red or to have a golden colour? Uvaṭa's interpretation is probably mere guess-work. The word inevitably evoked an association with *śáṣpa-* and *piñjára-*: *śaṣp-* (for *sasp-*) may even be due to this association. Since *sasp-* cannot be explained in this way as a secondary form, TS (although often containing secondary readings, such as 6.2.4.2-3 *vāmamoṣáḥ* and *darbhapuñjīlám* for *emūṣáḥ* and *dālbhūṣī-*) seems here to have preserved the authentic form of the word. In that case a prefixed form **sa-ppiñjara-* would be a more natural analysis but this is bound to remain purely hypothetical and does not clarify the meaning of the word. Note *śaskuli-*, v.l. for *śaṣkuli-*.

f) *mm*

Substitutes for *mm* are *dm*, *lm*, *śm/ṣm*, but also *mb*, another type of dissimilation, which will be discussed first. It has long been recognized that RV+ *ámba*, the so-called 'vocative' of *ambā*, is an old interjection. The Rigveda has also isolated forms of *ambí-* and *ambī́-* (which are problems in themselves) and the YV has also a normalized vocative *ámbe* (in MS (KS TS) VS *ámbike ámbe ámbālike*). It is generally accepted that *ámba* stands for **amma*, which is explained as a 'Lall-Interjection' (EWAia I: 100). It should be noted that in Prakrit *mm* is mostly left unchanged (AMg *ammā* 'mother') or has been dissimilated to *mh*: *ammo* (*amho*), *ammahe* (*amhahe*). Its origin is a separate problem that is ignored in the etymological dictionaries: is it a new formation on the basis of child language or ... a new borrowing? For *these* words a Dravidian origin would seem obvious (K. 1989: 129). The origin of Ved. *ámba* might be left open but for the vocative Ved. *ámbālike* (KS TS *ámbāli*), cf. class. *ambāḍe*, *ambāle* (Vārttikā ad Pāṇ 7.3.107) and Marathi *ābāḍā*. In view of such Dravidian interjections as Tam. *ammāṭi*, it would seem that *ambāḍe* is a normalized vocative for **ambāḍi* (cf. YV *ámbāli*). There is in these words often a vacillation between the meaning 'mother' and the exclamation. Cf., e.g. Tam. *ammā* 'mother, exclamation of pity and surprise' and Pkt. *hī hī māḍike* (Mṛcch.), etc.

A parallel case is, apparently, *ambu-* n. 'water' (first attested in Śvetāśv. Up.). Cf. Kuṛux, Malto *amm* and Tam. *am*, *ām* (Kalittokai). See DEDR 187.

It is not uncommon for *b* in foreign words to be 'naturalized' as *bh*, e.g. Pali *cumbaṭa-* n. 'coil' : Pkt. *cumbhala-*; RV *busá-* (n.?) 'mist, fog' : Marathi *bhusẽ* 'drizzling rain, mist'; class. *busa-* n. 'chaff' : Pkt. *bhusa-*; RV *bísa-* n. 'fibre of the stalk of the lotus' : Pali Pkt. *bhisa-*, etc. (CDIAL 9249; cf. *bhiṣaṇṭakam iti loke* comm. on Suśr. 452b, lex. *viṣaṇḍa-*); lex. *bhaṇḍi-* 'cart' : Kannada, Telugu *baṇḍi*; lex. *bhaṇṭākī-* 'egg plant' : *vṛntāka-*, etc.; *karambha-* 'groats, mixture' : *karambita-* (lex. *karamba-*) 'mixed', etc. (p.33).

Attention may therefore be drawn to a problematic word group, although some details cannot be explained until later (pp. 74, 82). To Suśr. *armaṇa-* 'a particular measure, one droṇa', Pali *ammaṇa-*, *ammaṇaka-* (v.l. *ampaṇaka-*) 'a trough, a certain measure of capacity', Sinhalese *amana*, *amuna* 'a measure of capacity for corn' corresponds Tamil *avaṇam*, *amaṇam* 'a measure', *ampaṇam* 'a grain measure', Malayalam *avaṇam* 'a weight or

measure' (DEDR 263). In a different context these words have been connected with *ambhaṇa-* n. 'body of a lute' (AitĀr. 3.2.5, Śāṅkh.Ār. 8.9) and further with *ambhṛṇá-* 'tub, Soma-trough' (VS 19.27, ŚB). As for Pali *ampaṇaka-*, it is a variant reading at Jāt. II,117 (Kern 1916: 72). Tam. *ampaṇam* (pronounced [ambaṇam]) 'a grain measure, a kind of lute', which is attested in Sangam texts (Subrahmanian 1966: 39f.), may be a borrowing from Indo-Aryan. If *ambh-* stands for **amm-* (with dissimilation), it follows that class. *armaṇa-* must be a case of secondary Sanskritization, as was first suggested by Kern. The reason why Turner, CDIAL 688, keeps *ammaṇa-* apart from *ambhaṇa-* is apparently (see KEWA III: 610) that he was unaware of the possibility that *amb(h)-* can stand for **amm-*. He therefore took *armaṇa-* as the original form. For *arm-* see below (p. 74) and for semantic parallels for 'pot' : 'lute' see K. 1955: 149. The problem of *-aṇ-* : *-ṛṇ-* will be discussed below (p. 82ff.).

Methodologically the case is instructive because all words can be traced back to **ammaṇ-*. That there is a wide range of possible substitutes is inherent in this material and cannot be used as an argument against this method, which consists in merely registering apparent variants. For an Indo-Europeanist the idea that *armaṇa-* and *ambhṛṇá-* represent the same word is of course incompatible with the methods he is accustomed to work with but this case obviously does not belong to the domain of historical linguistics. Mayrhofer, EWAia I: 101, who understandably separates *ambhṛṇá-* from the other words, concludes: "Idg. Ursprung des ved. Wortes ist prinzipiell glaubhaft."

* * *

There are several words with *śm* or *ṣm* which is likely to stand for *mm*, but it is often difficult to prove this origin. A case in point is Mhbh *kāśmarī-*, *kāśmarya-*, lex. *kambhārī-*, *gambhārī-* 'the tree Gmelina arborea'. For KS+ *kārṣmaryà-* see below, p. 71. The lexicographical words survive in NIA, see CDIAL 3082. All variants can be traced back to **kammar-/ *gammar-*. For *-ambh-* cf. above *ambhaṇa-*.

In this connection attention may be drawn to a problem of the classical language. By the side of KS TS VS JB *kūśmá-*, MS *kūṣmá-* 'an imp or goblin', which can be traced back to **kumma-* (see below) on account of Kannada *gumma*, Tulu *gummè* 'bugbear, devil' (DEDR 1758), there occurs Pur. *kuṣmāṇḍa-*, *kūṣmāṇḍa-*, Buddh. Skt. *kumbhāṇḍa-* 'class of demons' (KEWA I: 247). The last word is traditionally taken to stand for Prakrit *kumhaṇḍa-*. It should be noted that this is not the only possible

explanation, since *kumbhāṇḍa-*, irrespective of whether it is a cognate of Ved. *kūśmá-* or not, can stand for **kummāṇḍa-*.

Only in passing it may be observed that in Kannada and Tulu *-mb-* sometimes stands for a single *-m-* (Ka. *kumbuḍi* : *kumuḷe*, DEDR 1742; Tu. *tam(b)uḷu*, DEDR 3080).

An instance of *-lm-* for *-mm-* in the classical language is Manu ep. *gulma-* 'troup'; cf. Tamil *kumi-* 'to be heaped up, crowd', *kumpu* 'crowd, collection, group', Kannada *gumme*, *gummu*, *gumpu* 'heap, crowd, multitude' (DEDR 1741). Since the fruit or blossom of the *śalmalí-* 'milk-cotton tree' is *śimbalá-* (RV III.53.22), the two words can be different dissimilations of **śammal*/**śimmal*. Such an indirect indication does not exist for AV MS *kúlmala-* n. 'the part of an arrow or spear by which the head is attached to the shaft'; here *-lm-* interchanges with *-ḍm-* in Mhbh. *kuḍmala-*. The last form is reminiscent of the homophone *kuḍmala-* 'filled with buds', *kuḍumala-* 'opening bud', *kuppala-*, *kumpala-*, etc. The details are not clear (AiGr. II/2: 771, CDIAL 3250 **kuḍma-*) but these words may reflect different forms in Dravidian; cf. Telugu *kodama* 'the young of any animal', *komma* 'maiden, female', Kolami *kommal* 'daughter' (DEDR 2149). As for *kulmāṣa-* 'half ripe barley' (ChUp), 'gruel' (Suśruta), Sindhi *komu* 'junket' points to an analysis **kumm-āṣa-* (with suffix *-āṣa-*, see p. 26). Note that in this way Br. *úlmuka-* ,n. 'firebrand' might be connected with Guj. *umar*, etc., for which Turner, CDIAL 2342 reconstructs **umbāḍa-*. But see p. 45.

g) *ll*

Turner explains three Vedic words in *-lvá-* as belonging to the category of 'defective' words. ŚBM *bulvá-* 'sideways' (11.5.4.14) is quoted under the heading CDIAL 9292 *bulva-*, **būla-* 'defective', etc. By the side of **būla-* (Pkt. *būla-* 'dumb', Marathi *bulā* 'impotent') cf. 9539 **bhulla-*, **bhōlla-*, **bhōla-* 'defective'. Semantically the connection is not self-evident, if the meaning 'sideways' is correct. Turner gives 'defective (crooked?)' as the meaning. The passage runs as follows:

bulvám̐ nvā́ ayám imám ajījanata, bulvó bhaviṣyatī́ 'ti

"[And some recite it to him while he (the student) is standing or sitting on (the teacher's) right side; but let him not do this; for if, in that case, any one were to say of him,] 'Surely, this (teacher) has born this (student) sideways, he will

become averse to him'; [then that would indeed be likely to come to pass]" (tr. Eggeling).

As for AV *malvá-* [Śaun. 5.18.7 *malvà-*] 'silly', see CDIAL 9915. It is hardly of Indo-Aryan origin, but any evidence for **malla-* is lacking. VS *áti-kulva-* [VSK *áti-kūlva-*] 'too bald', *kulva-* 'bald' (KātyŚS) can stand for **kulla-* (Marathi *kol* 'impotent', see CDIAL 3355). For attempts to connect *kulva-* with Av. *kauruua-* and/or Latin *calvus* see EWAia I: 377.

In conclusion, the names of two plants with *ll/lv* may be mentioned. As for lex. *billa-* 'Asa foetida' : *bilvā-* '*hiṅgu-pattrī*' (if referring to the same plant), their relation is debatable, because *billa-* can be of Middle Indian origin.

Certainly old is *lv* in AV+ *bilvà-* '(the fruit of) Aegle Marmelos', Pali Pkt. *billa-* (and Pali *beluva-*, *beḷuva-*, *bella-* from *bailvá-*). The accent seems to rest exclusively on TS 2.1.1.2 *táto bilvà úd atiṣṭhat*. In Śaun. 20.136.15a, however, P2 (among the few mss. that here write an accent) reads *mahắn vaí bhadró bílvo* and this is also found in MS 3.9.3 (1.6,14) *tásmāj jyótiṣo bílvo 'jāyata*. On the other hand, Khila II.6.6 (*bilváḥ*), V.22.10 (*bilbó*) has the accent on the last syllable. ŚB 13.4.4.8 *bilvas* is ambiguous (*bílvas* or *bilvàs*?).

The accent *bilvàs* of TS, if correct (but cf. Śaun. 5.18.7 *malvàḥ*, in many mss., for *malváḥ*), would point to **bilúva-* and one of the two metrical passages (Śaun. 20.136.15a = Khila V.22.10a) confirms this: *mahắn vaí bhadró *bíluvo*, but in Khila II.6.6a *vánaspátis táva vṛkṣó 'tha bilváḥ* it is disyllabic.

DEDR 5509 gives an argument for connecting *bilvà-* with the Dravidian words for '(fruit of) the wood-apple (Feronia elephantum)', viz. Tam. *veḷḷil* (Sangam word), *viḷā*, lex. *veḷḷiyam*, etc. It is difficult to decide, whether *bilvà-*, *bilvá-* should be derived from Drav. *veḷḷ-* or from **beḷav-* in Kann, *beḷaval(a)*, *balavala* (Tam. *viḷavu*, by the side of *viḷā*, is a lexicographical word).

In New Indo-Aryan *-lh-* is not uncommon as a substitute for *-ll-*. Cf., e.g., Marathi *kulhā*, *kullā* 'buttock' (CDIAL 3353), Panjabi *gullhar*, *gullar* 'Ficus glomerata' (CDIAL 4218), Lahnda *malhaṇ* 'assembly for wrestling' (CDIAL 9907). A class. Sk. instance is *kulharī-* 'pot' (Bhāvaprakāśa, see CDIAL 3354). in this way YV *malhắ-* 'dewlapped' may stand for **mallā-*, cf. Malayalam *māla*, Kodagu *ma.le* 'dewlap' (DEDR

4827).

h) The Vedic evidence

At the end of this exposition a brief survey of the evidence contained in the Vedic *saṁhitā*s may be useful.

For ***kk***:

sk in RV *táskara-* 'highwayman, robber', RV *Práskaṇva-* PN. (K. 1955: 168f., 1960: 168).

[Note: since compounds with *-kara-* are oxytone (*khajaṁkará-*, *yātaṁkará-*, *abhayaṁkará-*, *kācitkará-*), the word cannot be analysed as *tás-kara-*. For earlier theories see K. 1955: 169 n.45, AiGr. II/2: 541, KEWA III: 722. Cf. CDIAL 5489 **ṭhagg-*, **ṭhakk-*, **ṭhaṅg-* 'to cheat' (note Marathi *ṭhak* 'thief', *ṭhakṇē* 'to be deceived'; hence also Tam. *takkaṭi* 'guile, deceit', etc., DEDR App. 42). Note also CDIAL 5543 **ḍākka-* 'robber, robbery'. The ultimate origin, however, is hardly Dravidian; also Tam. *takkaṉ* 'thief' in the Kambarāmāyaṇam is likely to be a loan-word. For the semantic relation 'deceiver' : 'thief' cf. Skt. lex. *kalama-* 'thief' (late: Trikāṇḍaśeṣa and Medinīkośa) : Tam. *kaḷ-* 'to rob, steal, deceive', *kaḷavu* 'robbery, theft, deceit, hypocrisy', etc. (DEDR 1372); *kharpara-* 'thief', *kharapaṭa-*, name of the author of the Coraśāstra : Tam. *karappu* 'concealing, theft, fraud, deceit', etc. (DEDR 1258); Tam. *toṅkaṉ* 'robber, thief' : Telugu *doṅga* 'false, deceitful; secret' (DEDR 2982).

For *Práskaṇva-* see pp. 43, 80.]

ṣk (after *a*) in RV *baṣkáya-* 'grown up; calf'.

ṣk (after *i* and *u*) in AV *puṣkalá-* 'splendid' and Paipp. *Viṣkali-*, name of an accouching deity; possibly in RV+ *púṣkara-* 'blue lotus' (but **pukkar* is not attested).

rk in Śaun. *kurkurá-* 'dog'.

tk in TS *katkaṭá-* (KSA *kakkaṭa-*) 'deer', see IIJ 34: 118.

For *gg*:

dg in RV *Múdgala-*, PN; *mudgá-* 'bean'; possibly also in YV *madgú-* 'water-bird'.

[Note: for *Múdgala-* cf. the later forms *Mutkala-*, *Muṅga-*, *Muṅgaṭa-*. As for *madgú-*, it cannot be connected with *majj-* 'to dive'. For the formal aspect cf. BHSkt. *madgu-*, *maṅgu-*, *maṅku-* 'mentally disturbed, upset, abashed, out of countenance', Pali *maṅku-* 'staggering, confused, troubled' (: Kannada *maṅku*

'confusion of mind', etc. DEDR 4750. But note Tam. *maḻuku-*).]

lg in KS TS *gúlgulu-* n. 'bdellium'.

[Note: Śaun. Paipp. *gúggulu-* n. is understandably taken as a case of assimilation but since it is in any case a foreign word, the geminate is more likely to be the original form of the cluster.]

For *cc*:

rc in TS *kūrcá-* 'bunch, tuft, brush'.

For *tt*:

rt perhaps in RV *gárta-* 'high seat, chariot seat'. See CDIAL 4053.

For *pp*:

ṣp in RV+ *guṣpitá-* 'interlaced'; AV MS *píṣpala-* n. (= *píppala-*); perhaps in YV *śaṣpíñjara-*.

lp in AV *gulphitá-* 'interlaced'.

tp perhaps in TS *śitputá-* 'a kind of cat' (?).

[Note: TS 5.5.17.1 (comm. *mārjārasadṛśo jātiviśeṣaḥ*): KSA 7.7 *śimyuṭa-*. The meaning given by the commentary is of course uncertain. Owing to the idea that *śimyuṭa-* is related to RV *Śímyu-*, name of a people (VedInd. II: 381), the fact is mostly overlooked (Sharma 1959: 278) that not only the v.l. *śityuṭa-* in one ms. of TS is obviously miswritten for *śitputa-*, but that also *śimyuṭa-* is exclusively based on the Chambers ms. and can stand for **śimputa-*. In that case, the variant could be explained as standing for **śipputa-*. Sharma takes *-ṭa-* as suffixal and points to *harmuṭa-* 'tortoise', *kukkuṭa-* 'cock'. If so, a Dravidian origin would be probable (see p. 45), but Drav. **cipp-* is not known.]

Note that RV *katpayá-* (V.32.6) may stand for **kappaya-* (with suffix *-ya-*?), but in EWAia I: 285 it is explained as 'grässlich anschwellend'.

For *mm*:

mb(h) in RV *ámba* 'mother!', VS *ambhṛṇá-* 'Soma trough'.

lm in AV MS *kúlmala-* n. 'the part of an arrow or spear by which the head is attached to the shaft'.

[Note: see above (p. 65) for Mhbh. 8.24.257* *kuḍmala-*, and Zimmer 1879: 300 for the meaning ('the neck').]

dhm, perhaps in YV *sidhmá-* 'white-spotted (?)', VS TB *sidhmalá-* 'leprous', if from **cimm-*, but see KEWA III: 466 and Kann. *cibbu*, etc. (DEDR 2536).

For *ll*:

lv in Ved. *bílva-* (*bilvá-*, *bilvà-*) 'Aegle Marmelos', Śaun. *malvá-* (5.18.7 *malvà-*) 'silly', ŚB. *bulvá-* 'sideways', perhaps VS *áti-kulva-* 'too bald'.

lh in YV *malhā́-* 'dewlapped'.

i) EXCURSUS: POST-RIGVEDIC *ḫk*, *ḫp*

The following words with *ḫk*, *ḫp* are spelling variants for *ṣk*, *ṣp* in Vedic texts other than the Rigveda. They are probably due to scribal conventions of much later times. It is not clear to what extent they are also phonetic variants. The words are: Śaun. 9.9(11).9 *jāḫkamadá-* 'a certain bird', MS I.2.2 (Satavalekar) *guḫpitá-* 'interlaced', KauśS. 23.8, 138.2 *śaḫkulī-* 'a large round cake', 38.3 *kiḫkuru-* (Dārila *kiṁkuru-*) 'staff, club' (Keśava: *lakuṭa*), Nigh. 2.14 *ṣvaḫkati* 'goes'. For the last word the Dhātupāṭha 1.100 has *ṣvaṣkati*, *ṣvaskati*, *ṣvakkati*. As for *śaḫkulī-* and *guḫpitá-*, there can be no doubt that *śaṣkulī-* (Mhbh., Suśruta, BhāgPur.) and *guṣpitá-* (RV AV MS) are the regular forms, where *ṣk*, *ṣp* stand for *kk*, *pp*. The spelling with visarga is well known from South Indian inscriptions, e.g. *puḫpa-*, *vāḫpa-* (for *bāṣpa-*); see AiGr. I: 261.

Although two of the instances quoted occur in the Kauśika Sūtra, this spelling convention is different from the external sandhi in that text, where only *-iṣ*, *-eṣ*, *-uṣ*, *-oṣ* before *k-* and *p-* interchange with *-iḫ k-*, etc. (Bloomfield 1889: lix), both standing for jihvāmūlīya [x] and upadhmānīya [φ]. This spelling, again, is different from the (later?) Northern usage of writing *ṣ* for *ḫ* in *all* positions before *k-* and *p-* (e.g. K. 1987: 152), perhaps the generalization of the use of a symbol, resembling that for the upadhmānīya, before *p(h)-* (Kirste 1890: 36). That it was pronounced as [φ] is apparent from Gopālakelicandrikā IV.92c *mārgataph kuñjamūle*.

Both *ḫ* and *ṣ* are also used to render fricatives in foreign words. For *Tukhāra-* (e.g. Mhbh. 2.47.26, 3.48.21, 3.174.12, 6.10.66, 6.71.20 v.l., 8.51.18, 8.64.16, 12.65.13 v.l.) the mss. at Rājatar. 4.166 have a variant reading *Tuḫkhāra-* (beside *Tukkhāra-*, *Tukkāra-*). Cf. *Tuṣāra-* 6.71.20 (and everywhere else as a variant reading for *Tukhāra-*), Rām. I.54.3 (v.l.), Hariv. 10.210*, etc. In the same way *riḫpha-*, *riṣpha-*, name of the 12th astrological house (VarBS), stands for Greek *rhiphé* (with fricative *ph*?), and *duruḫpha-*, *durupha-*, name of the

15th Yoga, apparently stands for Greek *doruphóros* (in the sense of 'satellite').

Note also the use of a sibilant in inscr. *naścīrapati-* 'hunting master (?)', for Middle Persian *naxčīr* (KEWA II: 145).

Śaun. 5.18.7 *niḫkhídam* has wrongly been analyzed as *ni-ḫkhídam* (Roth and Grassmann); *-kkhid-* is a mannerism confined to the Taittirīyas. See Bloomfield 1896: 432 (*niḫ-khid-*).

5. THE 'INTRUSIVE' *r* AND *ṛ*
(See K. 1954a: 242-247; 1958a: 351-354)

a) General remarks

The so-called 'intrusive *r*' is a very complex phenomenon; or rather a complex of phenomena that may stem from widely different periods and places. Thus *nr* and *rn* for *ṇ* occur in Arabic and Sogdian loanwords (AiGr. I: 186, resp. *Nachtr.* 88 ad 165,20). In Sanskrit the tendency to 'naturalize' an unconditioned *ṇ* by inserting an *r* or *ṛ* has been common in many periods. Cf., e.g., *masṛṇa-* 'soft, smooth' and *ghusṛṇa-* 'saffron', which stand for Pkt. *masiṇa-* and *ghusiṇa-* (see p. 82). Often, however, the rationale of the insertion is far from clear. This chapter does not claim to cover the whole subject. What can be done at this stage is hardly more than registering the various categories, but it is sufficient for the purpose of this study.

Even the five categories b-f do not cover the whole evidence. Note, e.g., *drogarikā*, of uncertain meaning (Ep. Ind. XXII: 108n.), which is said to be a Sanskritized form of *doṅgarikā*. Sometimes it is hard to delimitate this category from the one with '*rC* for geminate' (e.g. *kūrca-* 'bundle' : Tamil *kuccu*, etc., p. 59). It should finally be observed that popular etymology may account for *r* in such words as *kramu(ka)-* 'areca palm' (: Tam. *kamuku*, DEDR 1233), *triputā-*, etc. 'Indian jalap' (: Kann. *tigaḍe*, *tiguḍu*, DEDR 3199), *pravāḍa-*, *pravāla-* 'red corral' (: Tam. *pavaḻam*, *pavaḷam*, etc., DEDR 3998), *priyāla-* for *piyāla-* 'Buchanania latifolia'.

b) *rṣ*

This category is of little importance, since the only instances so far known are dubious variant readings of a

Rigvedic *hapax legomenon* and a Yajurvedic word.

RV VIII.53.4 (Vālakhilya 5.4) has the word *śīṣṭāsaḥ* 'bards (?)', for which Aufrecht[2] and the Bombay ed. of 1889-91 read *śīṣṭeṣu*. A variant reading is *śīrṣṭāsuḥ*, the Kashmir text reads *śīrṣṭeṣu*, and Max Müller *śīrṣṭreṣa*. Just as in the case of VI.23.6 *rāndryā* for *rāṇḍyā*, the variant readings may have crept in at any time.

The second instance is MS+ *kārṣmaryà-* 'Gmelina arborea'. In class. Skt. we find *kāśmarī-*, *kāśmarya-* by the side of lex. *kambhārī-*, *gambhārī-*, *gambhārikā-* (CDIAL 3082). They can stand for **kammar-/*gammar-* (p. 63). In view of KS VS *kūśmá-* : MS *kūṣmá-* 'an imp or goblin' (: Kann. *gumma* 'bugbear, devil', DEDR 1758) there may have existed a variant **kāṣmaryà-* by the side of *kāśmaryà-*, and *kārṣmaryà-* is apparently its 'Sanskritized' form. Lex. *kārśmarya-* seems to be a blend of *kāśmarya-* and *kārṣmarya-*. The vocalism excludes a connection with Tam. *kumiḻ* 'coomb teak', etc. (DEDR 1742).

Note the variant reading *kāvarṣeyaḥ* for *kāvaṣeyaḥ* in Śāṅkh.Ār. VIII.11.

c) *dr* for *ḍ*, etc.

This category (K. 1954a: 244f., 1968: 81) must be distinguished from '*dr* for *d* followed by *ḍ*' (e.g. *drāviḍa-*) which belongs to the wider group discussed below under e). It is well known in the classical language, e.g. *gadrūka-* n., *kadrūka-* n. 'hump on the back of a buffalo' : *gaḍu-*; lex. *candrila-* 'barber' : *caṇḍila-*; *kodrava-*, *kudrūṣa(ka)-* 'Paspalum scrobiculatum' : Pkt. *koḍūsaga-*; *hariṇadru-* (comm. on Suśr. 31b) 'a kind of tree' : *hariṇaḍuva-* (comm. on Suśr. 221b, see Katre 1957: 253).

Also *ḍr* occurs, e.g. *Coḍra-*, *Cauḍra-* for *Coḍa-/Cola-* (Tamil *Cōḻaṉ*), cf. Mhbh. 2.28.48 *sahitāṁś Coḍrakeralaiḥ*, 8.8.15 *Cauḍrāḥ sakeralāḥ*. Tamil *ḻ* is as a rule rendered by *ḍ* in Sanskrit, e.g. Tam. *tamiḻ* > *dramiḍa-*, the reading of Kashmir mss at Mhbh. 1.165.36, 13.35.17, 14.29.16 and (v.l.) at 2.28.4, 3.48.18 and 118.4, 6.10.37, 8.8.14, 14.84.11. The South Indian mss here read *dramiḍa-* or *dramiḷa-*. Skt. *Coḷa-* in South Indian mss (e.g. Mhbh. 3.48.18, 7.10.17) does not accordingly reflect Tam. *Cōḻaṉ* in South Tamilnad (Tam. *ḻ* > *ḷ*) but Skt. *ḍ* > *ḷ* (> *l* in North Indian mss). In South Indian mss *ḷ* was retained (Lüders 1940: 548), because /ḷ/ is a phoneme in South Dravidian. Note SāhD. *paṇḍra-* 'eunuch' for *paṇḍa-*.

The Vedic evidence comprises the following words:

RV VI.23.6 *rā́ndryā*, v.l. for *rā́ṇḍyā* (meaning?); since the metre requires a disyllabic word, *dr* must have been introduced by a later 'purist'.

Śaun. I.25.2,3 *hrū́dru-* (Roth-Whitney, Viśvabandhu: vv.ll. *hrūḍu-*, *hūḍu-*, *rūḍu-*, *rūḍhu-*, *hruḍu-*) as against Paipp. 1.32.2,3 (Orissa) *huḍu-*.

KapKS 27.6 (^{2}137,7), VS 16.52 *víkiridra* : KS 17.16 (259,3) *vikiriḍa*. Note MS II.9.9 (128,3) *vyákṛḍa*, but Padapāṭha *víkiridra* (doubtful; for **vikiḍa-* ?).

KauśS. 50,22 *kudrīcī-*, name of a shrub : Suśr. *guḍūcī-*.

In the case of *dru/ḍu/ḍa* misreadings may occur, cf. von Schroeder ad KS 28.8, who seems to have misread KapKS 44.8 *paṇḍaka* as *yaṃdruka-*.

In class. Skt. *druṇī-* 'tortoise' : *ḍulī-*, *duḍī-* is ambiguous. Either *dr* stands for **ḍ(uṇī-)* (cf. Pkt. *ṇa-ḍḍulī-*) or it is due to *ṇ* (**duṇī-*; see p. 74).

A case with *tr* would be *tarpara-* 'bell hanging down from the throat of cattle', if this stamds by metathesis for **trapara-* : Kolami *ṭapor*, Gondi *ṭāpur*, *ṭāpar* (DEDR 2948, but see also K. 1958b: 241).

d) *rd/ṛd* and *rt* for *ḍ*, *ṭ*

Most instructive is the case of Ved. *kartá-* 'pit, hole'. It has long been recognized that Ved. *kartá-* (RV 1.121.13, II.29.6, IX.73.8,9, Śaun. MS TS VS), along with *kāṭá-* (RV I.106.6, AV MS), *gárta-* 'id.' (ŚB KB GopB) and the NIA evidence found in Turner's Nepali Dictionary, stand for one foreign word (K. 1954: 245). Attention was also drawn to Pkt. *agaḍa-* 'pit', apparently a prefixed form (p. 41) of *gaḍa-* n. 'id.' that is also found in Santali *gaḍa*, etc. (K. 1958a: 352 n.15). That the latter is a genuine Munda word cannot be questioned, cf. Santali *gaḍa* 'a hollow, pit, excavation, trench, river', Mundari (Hasada' dialect) *gaṛa* 'a trench, grave, water-course, stream, river', Birhor *gaṛa* 'river, stream', Ho, Bhumij *garra*, Korku *gada*, Kharia *ga'ṛha* 'id.' (Pinnow 1959: 351). About the same time Burrow pointed to Kannada *kaḍḍa* 'a pitfall to catch elephants' but, whereas Pkt. *agaḍa-* clearly points to a Munda origin, the Kannada word is isolated in Dravidian (it has not been listed in DEDR) and is, therefore, probably a borrowing (K. 1958a: 352 n.15). Genuine Dravidian words for such a pitfall are Kann. *ōḍa*, *vāḍa*, Telugu *ōḍamu* (DEDR 1048) and Tamil,

Malayalam *koppam* (DEDR 2103).

Definitive confirmation of a foreign origin came from Turner, CDIAL 2851 s.v. *kartá-*, who referred to *gárta-*, **gaḍḍa-*, **gaḍḍ-*, **gaḍa-*, **gallī-*, **gālī-*, **galī-*, **khaḍḍa-*, **khāḍa-*, **khalla-*, **khāla-*, **khala-* for 'digging' and 'hole'. Turner at that time thought of a Dravidian origin but the Dravidian words for 'paddy field' which he connected with *gárta-* belong to a different word group (DEDR 1355). This group, however, provides some useful parallels for a problem that still awaits a solution, viz. the *t* of *gárta-*. Among the Prakrit words for 'mud, swamp, sediment' (CDIAL 2867 *karda-*, 4011 **gadda-*) one finds *gatta-* beside *geḍḍa-*. Hence 3860 **khāḍa-* 'a hollow' is interesting as a close cognate of Ved. *kāṭá-*, and Pkt. *khatta-* of Ved. *kartá-* (but see CDIAL 3863 for Pkt. *khatta-*). That the old theory of Vedic Prakritisms with *ṭ* for *rt* (AiGr. I: 167ff.) can no longer be maintained in that form was observed above (p. 27).

Since there is general agreement that *kartá-* cannot be separated from *gárta-* (EWAia I: 472), the evidence produced by Turner should also be decisive for *kartá-*. Note particularly Buddh. Hybrid Skt. *khadā-* in *agni-khadā-* 'fire-pit', which was discussed by Régamey 1955: 7-9. For *k/kh* note p. 49. The evidence of *kh* is, however, disregarded (just as in the case of *krīḍati*, p. 77) and this reveals the existence of different perspectives. In Indology the evolution in the latter half of this century has gradually led to a pan-Indic view in linguistics: an attempt is made to include *all* languages of *all* periods in one comprehensive view. The concept of an Indian linguistic area implies that languages of different families have influenced each other to a high degree. As a result, the traditional (basically 19th century) approach of the Indo-Europeanists is this field calls for a fundamental revision. It is of course legitimate that attempts to explain (particularly Vedic) words from Indo-European should continue: any such attempt will be welcomed just to keep the balance. It should be realized, however, that in the new light in which the problems (including the Vedic ones) have come to be observed, a one-sided Indo-Europeanist approach that simply ignores the Indological aspect risks to lose its credibility.

In the absence of evidence it cannot yet be decided whether *ṛd* and *ṛḍ* can stand for *ḍ*. For RV *váṅgṛda-* as opposed to AV *jáṅgiḍa-* see p. 28. Also such a case as lex. *śimṛḍī-* 'a kind of shrub' (Rājanighaṇṭu) is likely to be a hypersanskritism for **śimiḍī-*. But *-arda-* in TB *balivárda-*

(KS *balivanda-*) 'ox, bull' (CDIAL 9176) and Suśr. *alagarda-* 'water-snake' : Śaun. *ā́ligī-* 'name of a serpent' rather stands for *-adda-* (p. 60).

e) *CVrCVṭ, (C)VrCVṇ*

This category is closely related to the following one, only the place occupied by *r* being different. What they have in common is the fact that the retroflex which triggers the insertion of *r* can stand in the third syllable (type *Drāviḍa-*). The secondary character of *r* is particularly clear in the case of such loan-words as *drekkāṇa-* from Greek *dekānós*, which will be discussed sub f).

A case in point is lex. *narmaṭha-* 'chin' : Tam. *namuṭu*, *namiṭu* 'lower lip', etc. (DEDR 3596).

In the same way *rm* in Suśr. *armaṇa-* 'a measure of one droṇa' (CDIAL 688, DEDR 263) can be taken as due to the following *ṇ*, rather than as a dissimilation of the geminate *mm*. The details of Pali *ammaṇa-* 'a measure of capacity' : Tam. *amaṇam*, *avaṇam* have been discussed above (p. 63). For Skt. *ambhaṇa-* : VS *ambhṛṇá-* see pp. 63, 83, and for *carpaṭa-* above, p. 54.

f) *CrV(CV)ḍ-* and *CrV(CV)ṇ-*

The secondary character of *r* in these categories is particularly clear in *Draviḍa-* (*Dramila-*, *Drāviḍa-*) : Tamil *tamiḻ* (DEDR 3080) and, for the sub-class with nasal, in VarBS *drekkāṇa-* 'the third part of a sign of the zodiac', from Greek *dekānós* 'divinity presiding over ten degrees of the zodiac' (p. 54). The Greek */n/* must have been perceived as non-dental, perhaps because it was alveolar. It was therefore rendered by a retroflex, as in *paṇaphara-* n. 'epanaphorá', and **dek(k)āṇa-* entailed the insertion of *r*. Here also belongs *Trīśaṭa-* = *Tīsaṭa-* PN of a medical author. A few instances may suffice (see K. 1954a: 245, 1958a: 351-54):

lex. *druṇāsa-* 'bow' : *dūlāsa-*. If a compound of the type *iṣv-āsa-*, it contains a word **druṇa-/*dūla-* 'arrow': for **duṇ-/*duḍ-*. Is the PN *Droṇa-* connected with this word?

drāḍimī-mukulī- 'a bud of the pomegranate tree' (BKŚS 7.13) : *dāḍimī-*.

vruḍita- (*bruḍita-*) 'sunk' (Rājatar.) : *vuḍita-* (in

KātyŚS. 20.8.16-17 *apsu magnasya* : comm. *jalamadhye vuḍitasya*). Cf. Pkt. *buḍḍai* 'sinks', etc. (CDIAL 9272).

kroḍa- 'boar' : Santali *kuḍu*, Mundari *kuḍu*, *kuṛu* 'an uncastrated boar'.

lex. *druṇī-* 'tortoise' might belong to this category: for **duṇī-* cf. *duḍī-* 'id.'. In view of *ḍulī-* and Pkt. *ṇa-ḍ(ḍ)ulī-*, however, *dr* can also stand for *ḍ* (p. 71).

A particular case is lex. *krūra-* n. (also *kūra-*, *kūru-*) 'boiled rice' : Tam. *kūḻ* 'porridge', Tel. *kūḍu* 'boiled rice', etc. (DEDR 1911). The 'intrusive' *r* points to a following retroflex. Since Tam. *ḻ* is mostly rendered by Skt. *ḍ*, **kūḍa-* may have become **krūḍa-* and then *krūra-* (p. 30). Note also *drumbhūlī-* beside *dālbhūṣī-* (p. 61), which points to a retroflex phoneme here represented by *l*. See pp. 26, 47.

A Vedic instance is KS KapKS *krūḍayati* 'burns, heats', cf. Lalitavistara *parikrūḍyate* 'is roasted' (Edgerton 1953b: 321a). For details see K. 1958a: 349-351. Owing to a misunderstanding it has recently been stated (EWAia I: 415) that there an *attempt* was made to prove that *krūḍayati* means 'to burn'. The main facts may therefore be repeated here. *krūḍayati* occurs in two passages (KS 6.3: 51,9ff. and 6.7: 56,20; KapKS 4.2: 44,14ff. and 4.6: 53,2) where MS I.8.2 (117,12ff. and 16-17) reads *vidahati* and *śoṣayet* respectively. The second passage, viz. *na suśṛtaṁ kuryād, retaḥ krūḍayet...* is repeated in ĀpŚS 6.6.1 *na suśṛtaṁ kuryād, retaḥ kūlayet* (comm. *kūlayet* : *dahet*). Caland, it is true, ignored the commentary and translated "dick (d.h. unflüssig) machen" and Rau, Töpferei 70 renders "geronnen machen", but this rests on mere guess-work of PW II (1858): 507. This referred to a (fictitious?) root *kruḍ-* '*ghanatve*', by means of which Mahīdhara (and, as we now know, Uvaṭa) explained the word *kroḍá-* 'breast' in VS 25.8. This root may be due to a misreading of Dhātupāṭha 6.88 *kṛḍ-* '*ghanatve*' (a variant reading for *kūḍ-* '*ghasane*'). As for the first of these passages, viz. *tasmād atrapv ayaḥpātraṁ pratidhuk krūḍayati*, Caland, when in the winter 1930-31, not long before his death, he read it with his last student, explained it (on account of MS *vidahati*!) as follows: "Therefore fresh milk affects (corrodes) an iron vessel, if this is untinned". This may approximately be what the author had in mind, since immediately before these words it is said that the milk in the cow is hot: *agnir ... ayasā tad* (viz. *sūryasya retaḥ*) *akrūḍayat. tat krūḍyamānaṁ gavi nyadadhāt. tad idaṁ payaḥ*. The mythical heating accounts for the way fresh

milk affects iron, but what exactly does it refer to? As MS *vidahati* shows, no mere warming can be meant.

Anyway, the philological facts leave no doubt as to the identity of *krūḍayati* and RV *kūḷayati* (VIII.26.10) 'scorches' (CDIAL 3399). Most closely related are Kuṛux *kuṛnā* 'to grow warm, be heated; to cook on live embers, bake on an open fire', and Malto *kuṛe* 'to burn, roast, sear' but they are isolated in Dravidian (connection with Tam. *cuṭu-* 'to be hot, burn, heat', etc., DEDR 2654, is certainly not correct). Like many words in these two languages, they must be borrowings from a foreign source.

* * *

As for *krīḍati*, it expresses in the Rigveda the meaning of "a quick up-and-down or leaping movement", of "leaping, frisking, dancing" (K. 1955: 173, 1958a: 357). Hoffmann (1975: 214 n.5) objected to the word 'dance' but disregarded, I am afraid, the fact that it also means "to jump about, skip, move in lively way, bob up and down on water, etc." (Concise Oxford Dictionary). The element of playfulness, which is often read into the Rigvedic passages, is only late-Rigvedic (IX.110.9, X.85.18, 42: cf. Renou, 1961:54). Cf. *kūrdati* 'jumps, leaps, plays', OEngl. *lācan* 'to move quickly, leap, play, sport', Danish *lege*, Swed. *leka* 'to play' : Goth. *laikan* 'to jump, leap, bound', Dutch *spelen*, German *spielen* 'to play' : Old Saxon *spilon* 'to move to and fro, dance', OEngl. *spilian* 'to move joyfully, dance'; Engl. *play* (in the 14th cent. 'to move swiftly, briskly, freely') : Dutch *pleien* 'to dance, leap for joy, rejoice'; Russ. *igrát'* 'to play' : OChSl. *igrati* 'to spring, leap, bound'; Tamil *āṭu-* 'to move, wave, swing: play, sport'.

If it were an Indo-European word, *krīḍ-* might stand for **kris-d-* or **klis-d-* (or even **kriḱ-d-*, **kliḱ-d-*). While Thurneysen chose the second possibility, K.F. Johansson opted for the first and compared Old Icel. *hrista* 'to shake', e.g. Þrymskviða 1.3 *skegg nam at hrista* 'he shook his beard', Atlikviða 13.3 *hristiz ǫll Hünmǫrk þar er harðmōðgir fōro* "the land of the Huns trembled where the heroes rode." *hrista* is, however, isolated in Germanic (Middle Low German *risten* 'to plait', etc., quoted by Pokorny 937, is hardly related. For MDutch *ristelen*, Dutch *ritselen* cf. Engl. *rustle*). The other Germanic languages have forms without *-t-*: Goth. *(af)-hrisjan* 'to shake (off)', OEngl. *hrissan*, OSax. *hris(s)ian* 'to tremble, shake, shudder'. The extension with *-t-* looks like a comparatively late phenomenon. Germanic *hris-t-*

can as well stand for **kris-t-*, and in view of Middle Irish *cressaim* 'I shake, swing' (Pokorny 937) and the well-known prehistoric relations between Celtic and Germanic, the assumption of a Celto-Germanic innovation **kris-t-* is more natural. Pokorny was quite right, accordingly, in keeping *krīḍati* separate from this word-group.

Also semantically, the etymological connection of a word for 'jumping, frisking' with a word-group that means 'to shake, tremble' is not self-evident; cf. e.g. Bēowulf 226 *syrcan hrysedon* 'the coats of mail rattled', OSax Hēl. 4313 *hrisid ertha* 'the earth trembles', 5663 *hrisidun thia hōhun bergos* 'the high mountains trembled'.

On the other hand *krīḍati* has been explained as standing for **kīḍati*. Master thought that **krīḍ-* was a case of (Central-)Dravidian epenthesis, whereas Pisani explained it as a hyper-Sanskritic form for MInd. **kīḍ-* (from **kīrd-*), which is excluded for chronological reasons alone; see KEWA I:279.

A third explanation, based upon the observation of a secondary insertion of *r* in foreign words with a retroflex, also derived *krīḍ-* from **kīḍ-*, a borrowing from an unknown source, from which in later times Pkt. *kheḍḍaï*, *khillaï*, *khelaï*, etc. were derived (K. 1954a: 242, 1955: 173, 1958a: 349-362). See CDIAL 3918 **khēḍ-*, **khēḍḍ-*, **khiḍḍ-*, **khīl-*, **khill-*, **khēl-*, **khēll-*, *kēl-/kēḍ-*. Mayrhofer (EWAia I: 413) dismisses them as "(unzureichende) Zeugen für nicht-idg. Ursprung von ved. *KRĪḌ*." This implies a disregard of the fact that in general the interchange *k/kh-* in Indo-Aryan points to a foreign origin (p. 49). The alternative would be to keep *khelati*, etc. entirely separate from *krīḍati*, which no one has done so far. A difficulty, it is true, is *kṣvelati* 'leaps, jumps, plays' (Rāmāyaṇa, Siddhānta Kaumudī, Bhāgavata Purāṇa), for which the crit. Baroda ed. reads *kṣveḍ-* (Rām. 5.3.25, 6.17.16, 6.40.837*, 6.47.8). The initial cluster is charac- teristic of onomatopoeic words. Turner (CDIAL 3918) remarks that *kṣvel-* cannot be hypersanskritic for *khel-* because of some Gypsy words and that it is even possible that *kṣvel-* must be separated from *khel-* on account of Hindi *helnā*. However that may be, *kṣvel-* or *kṣveḍ-* is no argument against the assumption of **kīḍ-/*keḍ-* 'to jump'. See p. 23, CDIAL 3759.

I must apologize for the fact that I cannot avoid repeating some details regarding Rigvedic *kīrín-*, particularly since the very existence of this word is now denied (see EWAia I:357). This *hapax legomenon* occurs in RV V.52.12

chandastúbhaḥ kubhanyáva útsam ā́ kīríṇo nṛtuḥ
té me ké cin ná tāyáva ūmā́ āsan dṛśí tviṣé

In Geldner's translation this is: "Die liedersingenden .... Barden tanzten zu dem Brunnen. Die Helfer kamen mir zu Gesicht wie unbekannte Diebe zur Überraschung" (cf. also Renou 1962: 28, 80). However, the translation 'bard' that had been proposed for *kīrí-* (not *kīrín-*!) by Max Müller, Ludwig, Geldner, Renou, was based on a wrong 19th century etymology. For *kīrí-* see Pischel 1889: 216-226, Neisser 1930: 59 and Geldner's note ad V.40.8 ('bloss, arm, gering'; cf. DEDR 1619?). The Maruts are *krīḷáyaḥ* (I.87.3), they are 'frisking like calves' (VII.56.16 *vatsáso ná prakrīḷínaḥ*) and since in the Rigveda *krīḍ-* and *nṛt-* are to a large extent synonymous, *kīríṇo nṛtuḥ* can be equated to I.166.2 *krī́ḷanti krīḷā́ vidátheṣu ghṛ́ṣvayaḥ* 'frisking they (the Maruts) are dancing (or jumping) at the festivals of distribution, the impetuous (gods)'. Therefore, in light of the parallel passages, 'they danced frisking to the well' (no longer mentioned in EWAia I: 357) would seem a perfectly natural translation (see K. 1958a: 361). Mehendale (1974: 670f.) has since published a different interpretation, which must here be mentioned because it has found some support. Since the word *kīrí-* is several times attested in the instr. sg. *kīríṇā*, he interprets *kīríṇo nṛtuḥ* as *kīríṇā u nṛtuḥ*. Unfortunately, he contents himself with the paraphrase "that the Maruts danced, and the singer of the hymn ..... dances with them too." It would, however, be a bit strange that the composer of the hymn, who in the next pāda refers to himself as 'me', would here have chosen the designation 'bard' (which, however, is certainly *not* the meaning of *kīrí-*). Equally important, however, is the fact that the use of *u*, here assumed, is, as far as I can see, impossible. It would have been Mehendale's task to demonstrate that his interpretation is *syntactically* possible. The interpretation of *kīrín-* as 'frisking' (rather than 'singing', Pischel 1889: 223) would seem the only natural one in the context and is the only one that is supported by parallel passages. On the other hand, since *r* can here stand for *ḍ* (see p. 31), it can prove the existence of **kīḍ-*, the proto-form of *krīḍ-*. Note **kēḍ-/*khēḍ-* (CDIAL 3918).

Some Indo-Europeanists may be inclined to reject this analysis because (unlike the case of *krūḍayati*) it does not result in an etymology. It is, however, essential to recognize that a formal analysis will often lead us to the limits of our knowledge. The attempts of many generations of Indo-Europeanists to

find IE etymologies have been useful in that they have shown that for many words no satisfactory explanation can be given. After more than 150 years of research along these lines we can safely assume that for the majority of these words all possible explanations have been explored, although Karl Hoffmann's brilliant etymology of *vrīḍ-* shows that some surprises can still be expected. For borrowings from a foreign source the possibility of finding an etymon is limited to Dravidian and Munda. A formal analysis of the process of adaptation will often be the last word.

6. *-aṇ-/-ṛṇ-* AND 'INTRUSIVE' *ṛ* BEFORE *ṇ*

a) *-aṇ-/-ṛṇ-*

As an introduction to the problem of the intrusive *r* it is necessary first to discuss the old theory that in the Rigveda *-ṛṇ-* has in certain words become *-aṇ-* or *-uṇ-* (AiGr. I: 191ff, Renou 1957: 7, etc.). The idea stems from a time when every word that occurred in the Rigveda was almost automatically considered to be of Indo-European origin (cf. Pott 1833: 169). The evidence quoted by Wackernagel, however, was in fact a collection of entirely obscure words and did not prove the correctness of the theory (K. 1954: 247, 1959b: 161, 163). Only rarely has *ṛ* become *u* owing to the occurrence of *u* in the next syllable. Thus it cannot be doubted that RV *múhu(r)* stands for **mṛhu(r)*, cf. Av. *mərəzu-* 'short'; but only the assumption of dissimilation in *múhur* can explain why there is no trace of **mṛhu(r)* and why other words, such as *ṛjú-*, *ṛṣú-*, *ghṛṣú-*, and *tṛṣú-* show no trace of **ujú-*, etc. Note that *múhu* (IV.20.9) and *muhuká-* (IV.16.17; 17.12) belong to the idiolect of one or two poets; RV+ *muhūrtá-* apparently stands for **muhur-ṛta-*. On the other hand, if Skt. *karoti* has its origin in an imperative **kunu* from **kṛṇu* (otherwise Karl Hoffmann 1976: 584), there is no guarantee that in this hypothetical allegro form the *n* was a retroflex (**kuṇu*: Renou 1957:7). If the traditional explanation of *śithirá-* 'loose' as a Prakritism for **śṛthirá-* (AiGr. I: 19) were correct, it would be a counter-instance. More likely, however, it is due to dissimilation (Zubatý, see AiGr. I *Nachtr.* 12). The only instance then remaining is *kitavá-* 'gambler' (II[1] V[1] X[6], from **kṛtavá-*), contrasting with *vikaṭa-* (X.155.1) in a late hymn (p. 28).

Since neither for RV *káṇa-* 'grain of corn' (EWAia I: 291), nor for *áṇva-*, *áṇvī-* (55), *āṇí-* (161), *kāṇá-* (336),

bāṇá-, *vāṇá-* and *váṇī-* and *-dhāṇikā-* a plausible Indo-Aryan etymology has been proposed, the strongest argument would be *Káṇva-*, which has been explained from **kṛṇva-* (Hoffmann 1940 = 1975: 21,25). This etymology was based on the traditional theory. As is apparent from Hoffmann's careful analysis, the word means in some passages 'sorcerer', which could be explained from *kṛ-*. None of the details, however, are strict proof that the etymology (which would have furnished the first certain instance of Rigvedic *-aṇ-* from *-ṛṇ-*) is correct. For the foreign origin of the Káṇvas see above p. 16. The name *Práskaṇva-* (I² VIII¹ X²) has been traced back to *-skṛṇva-*, but *skṛ-* for *kṛ-* is in the Rigveda only attested in *páriṣkṛta-* and *sáṁskṛta-* (and *páriṣ kṛṇvanti*, *pariṣkṛṇvánti*, *nír ... askṛta*). Besides, the meaning of *pra-kṛ-* in VII.31.10 *prácetase prá sumatíṁ kṛṇudhvam*, 34.9 *prá vo devatrā́ vā́caṁ kṛṇudhvam* does not semantically support the assumption of a word **prá-skṛṇva-*. For *pra-* as a foreign suffix see p. 43 and for *sk* see p. 67.

There is, it is true, one instance of Rigvedic *-aṇ-* < *-ṛṇ-*, viz. *durhaṇāyú-* (IV¹) 'schlimm zürnend' (with *durháṇa-* I¹, *durháṇā-* f. I¹, *durháṇāvant-* VIII², *durhaṇāyánt-* X¹), which stands for *durhṛṇāyú-* (I¹ VII¹) 'id.' as a result of dissimilation (Narten 1982: 140). It does not, accordingly, prove that 'vulgar' *-aṇ-* for *-ṛṇ-* occurs in the Rigveda.

There is some reason, accordingly, critically to consider the explanation proposed for RV *ogaṇá-* (see Pischel 1897: 191f., KEWA I: 561, III: 657, EWAia I: 276f., to be kept apart from Pali *ogaṇa-*). There is more or less a consensus on the meaning of the word in X.89.15 *śatrūyánto abhí yé nas tatasré*, *máhi vrā́dhanta ogaṇā́sa indra* "Die feindlich gesinnt wider uns ausgezogen sind, sich gar stark fühlend, die Gewalttätigen, o Indra" (Geldner). Bühler and Weber had pointed to Pkt. *oyaṇa-* '*kūraṁ caṇḍaṁ*' in Dhanapāla's Pāiyalacchī 5.163 (not in Sheth's dictionary), which was accepted by Oldenberg and Geldner. The latter added the remark "wohl ein unarisches Wort", which was rejected by Mayrhofer, EWAia ('unglaubhaft'). In 1886, however, Kern had connected *ogaṇá-* with *ugrá-* and this idea was later taken up by Reichelt and by Hoffmann 1976: 397 (=MSS 8, 1956: 17f.). It is certainly attractive to derive *ogaṇá-* from **ogṛ-* (cf. Avestan *aogarə*) 'power' and *úgaṇa-* from **ugṛ-*, since Debrunner's counter-argument (1954: 158) is not valid. There are, however, some difficulties:

a) The meaning 'machtvoll', which must be assumed on the

basis of that etymology, is possible in RV X.89.15 (instead of 'die Gewalttätigen') and in SV I.336 *úgaṇā mányamānas turó vā*, but in the two Yajurvedic passages it does not suit the context, cf. MS II.7.7 (83,15), etc.

yā́ḥ sénā abhítvarīr āvyādhínīr úgaṇā utá

and MS II.9.4 (122,15), etc.

náma āvyādhínībhyo vivídhyadbhyaś ca vo námo,
náma úgaṇābhyas tṛṁhátībhyaś ca vo námaḥ

Here only the meaning 'grausam, zornig' (Pkt. *kūraṁ, caṇḍaṁ*) is satisfactory, but this militates against an etymological connection with **aug-* (**$h_2$eug-*).

b) A secondary suffix *-na-*, which serves to derive adjectives from substantives, is rare in Sanskrit. Vedic *straíṇa-* (the *only* example in Lindner 1878: 136) is probably a derivative of the gen. plur. *strīṇā́m* (AiGr. II/2: 111) like class. *gona-* (ibid. 549). The *na*-derivatives from stems in *-as-*, such as *vadhasná-* (corresponding to Lat. *vanēnum*, Gothic *arhvazna*, Hoffmann 1975: 135) are substantives. See AiGr. II/2: 734.

c) That an uncommon (or unknown?) type of word-formation, derived from **augar-*, which is no longer extant in Indo-Aryan, should have been preserved in a single Rigvedic *hapax legomenon* is possible but does not contribute to the credibility of the theory.

d) That by the side of *ogaṇá-* a variant *úgaṇa(s)-*, which requires a special explanation (ablaut in the prehistoric inflection of **augar-*), should have survived into Vedic times, would be a curious coincidence.

e) The accent of *úgaṇa-* contrasts with that of *vadhasná-* (and *matasná-* 'lung'? see AiGr. II/2: 734, 928, but note *karásna-* 'Vorderarm', AiGr. II/2: 927, KEWA I: 309). *straíṇa-* is different (vṛddhi).

f) Whereas there is no support for the theory that Rigvedic *-aṇa-* can stand for *-ṛṇa-*, it does occur in a word of apparently foreign origin, viz. RV *an-ulbaṇá-* (EWAia I: 232) and in a late Vedic word (*ambhaṇa-*), see pp. 63, 83.

All indications, therefore, would seem to point to the conclusion that *ogaṇá-/úgaṇa-* is a foreign word. As for *alātṛṇá-*, which has been explained as a *na*-derivative from a stem in *r-*, it will be discussed below.

b) 'Intrusive' *ṛ*

In reaction (as it seems) to an incorrect pronunciation of vocalic *ṛ* in Vulgar Vedic speech, there was a tendency to use hypercorrect forms with *ṛ*; see VedVar II: 88, 177, 296, 333, 387; Oertel 1926: 25, 1934: 36; Sharma 1959: 114. Cf.:

SV 1.438, 2.1118 *índro nắma śṛutó gṛṇé* (also ĀśvŚS, ŚāṅkhŚS) : *śrutó gaṇé* (TB, ĀpŚS).
Śaun. 14.2.17 *devṛ́kāma-* : RV *devákāma-*.
MS II.2.18 (103,9) *sádhṛṣu* (v.l. *sádhriṣu*) : KS VS *sádhiṣi*.
MS II.7.7 (84,3) *mṛsmṛśắ* (with vv.ll.) : TS VS *masmasắ*, Śaun. KS *maṣmaṣắ*.
MS III.11.11 (158,9) *pṛṣṭhavắḍ* (Padapāṭha *paṣṭavắḍ*) : KS TS VS *paṣṭhavắḍ* (thus also MS II.7.20; 8.2; 11.6; III.13.18).
KSA 13.5 *gṛṣṭha-* : MS TS VS *kúṣṭha-*.
KapKS 29.8 (136,11/157,13) *jīvitṛtamaḥ* : KS *jīvitatamaḥ*.
KapKS 29.8 (137,2/158,9) *uddhṛtya* : KS *uddhatya*.
TS II.4.7 *jinvár āvṛt* (etc.) : KS *jinva rāvaṭ* (etc.).

The same tendency can be observed in class. Skt., cf. *ghusṛṇa-* 'saffron' (for Pkt. *ghusiṇa-*), *masṛṇa-* 'soft, smooth' (for Pkt. *masiṇa-*). Sometimes *r* (not *ṛ*!) may have been inserted before dental *n*, as in Śaun. 10.4.5,17 *kasarṇ́ila-* 'a kind of snake' (Paipp. 16.16.7 is corrupt), TS I.5.4.1 *Kasarṇ́iraḥ Kādraveyáḥ*, as against Suśr. *kasanā* 'a kind of venomous snake'.

Such hyper-Sanskrit forms are no marginal phenomena. Ignoring this general tendency can lead (and has actually led) to fundamental misinterpretations. An instructive case is the word for 'mucus of the nose, snot': lex. *śiṅghāṇa(ka)-*, *siṅghāṇaka-* (also comm. ad KātyŚS 16.3.19), *śiṁhāṇa-/ siṁhāṇa-*, and (in Āpastamba Dharmasūtra 1.16.14) *śiṅghāṇikā-*, v.l. *siṅghāṇikā-*. Cf. Buddhist Hybrid Sanskrit *siṅghāṇa-*, *siṁhāṇa(ka)-* and Pali *siṅghāṇikā-*. The verb *śiṅgh-* 'to sniff' (Dhātupāṭha 1.174 '*āghrāṇe*') is attested in *upaśiṅghati* 'kisses' (Bhaṭṭikāvya), cf. *upaśiṅghana-*, vv.ll. *upaśiṁhana-*, *upasiṁhana-* (Suśruta 2.515.11) 'anything given to smell at', and in *ucchiṅghana-*, v.l. *ucchiṅkhana-* (Suśr. 2.344.6), and *ucchiṁhana-* (2.358.19) 'breathing through the nostrils, snuffing, snoring'; further in lex. *śiṅghinī-* 'nose', Pali *siṅghati* 'to sniff, to get scent of', *upasiṅghati* 'to sniff at', Pkt. *siṁghai*, *suṁghai* 'sniffs', *siṁghana(ya)-* 'snot', Hindi *sũghnā*, *siknī*, etc. (CDIAL 12579, 12582). Only once (in Āpast. Dharmas. 1.16.14) we find, by the side of *śiṅghāṇikā*

and *siṅghāṇikā* the variant readings *śṛṅghāṇikā* and *śṛṅkhāṇikā*. According to the dictionaries *kh* further occurs only once in the variant reading *ucchiṅkhana-* in Suśruta. Still, PW VII: 287 gives *śṛṅkhāṇikā* as the true form and *śṛṅghāṇikā*, *śiṅghāṇikā* and *siṅghāṇikā* as variant readings (see, however, also col. 183). All attempts at an etymological explanation of these words (see AiGr. I: 19, Uhlenbeck 309, 315, KEWA III: 369, Burrow 1970: 54) are based on the variant reading *śṛṅkhāṇikā-*, which is found only once in some five manuscripts in one passage of Āpastamba. Note that Haradatta Miśra in a more recent edition rightly adopts *siṅghaṇikā* as the correct reading. For *ī* : *ū* cf. DEDR 2621.

A parallel case is class. *śṛṅgavera-* n. 'ginger' : Pali *siṅgivera-* (Tamil *iñci*, etc., DEDR 429, KEWA III: 370).

In light of such hyper-Sanskritisms it is not self-evident that in such cases as VS *ambhṛṇá-* 'Soma-trough' : AitĀr. *ambhaṇa-* n. 'body of a lute' the latter form has developed from the former one (EWAia I: 101). Whatever opinion one may hold of Indo-Aryan words ending in *-ṛṇa-*, the problem is that *ṛṇ* occurs in words of apparently foreign origin and that it cannot be supposed to have existed in Old Dravidian: the morpheme *r* in Kuṛux *kundr-nā* 'to be born', *kundr-kā* 'birth', as against *kund-nā* 'to bud' (DEDR 1729) is clearly different. In Old Munda *-ĕr-* must have existed (see p. 40 for **sĕr-*), but the occurrence of *-ĕrna-* can only be a vague assumption, and so would be speculations about unknown languages (although they have doubtless existed). A vocalic *ṛ* is anyway a rare phoneme. The most obvious explanation would be that it is here due to Sanskritization and stands for a different short vowel.

A Vedic instance is *kuṇḍṛṇắcī-* in RV I.29.6 *pátāti kuṇḍṛṇắcyā dūráṁ vắto vánād ádhi* and YV *rohít kuṇḍṛṇắcī goláttikā tắ apsarásām*. Neither passage gives a clue to its meaning and some of the commentators were clearly at a loss: Uvaṭa's comment on VS 24.37, viz. *vanacarīviśeṣaḥ* must be a mere guess, based on RV *vánād ádhi*. Things are different with the commentary on TS 5.5.16.1, not so much because its author is more trustworthy (many of his glosses in this passage are wild guesses) as because in this particular case the gloss *gṛhagodhikā* 'house lizard' seems indirectly to be supported by evidence that can hardly have influenced its author. Class. lex. *kuḍyamatsī-* 'house lizard' (hence *kuḍyamatsya-* VarBS) may be a product of popular etymology and simply reflect *kuṇḍṛṇắcī-*. If so, it would confirm the meaning given

by the commentary. Since the house lizard lives on the walls (cf. Pkt. *kuḍḍagiloī* '*gṛhagodhā*', Deśīnāmamālā 2.19), it was natural that *kuṇḍṛ-* was interpreted as *kuḍya-* 'wall'. Its origin cannot be ascertained, for a connection with Dravidian *kudur* in Parji *kudur ḍokka*, Gondi *kudur ḍokke* 'houze lizard' (DEDR 1712, for *ḍokke* see 2977) cannot be more than a vague possibility. Mayrhofer's comment "das vedische Wort wirkt indoarisch" (EWAia I: 364) is based on *-ācī* but how could *kuṇḍṛṇ-* be traced back to Proto-Indo-European? The word, if not related to Drav. *kudur*, may stand for **kuṇḍaṇācī-* (as was Sāyaṇa's solution ad RV I.29.6: *akārasya ṛkāraś chāndasaḥ* '*ṛ* for *a* is Vedic'), but there is nothing to prove or disprove it.

The second word with *-ṛṇa-* is different in that *-ṛṇa-* stands at the end of the word, which offers a wide range of theoretically possible interpretations. The word *alātṛṇá-* is only twice attested, viz. in I.166.7

prá skambhádeṣṇā anavabhrárādhaso
alātṛṇáso vidátheṣu súṣṭutāḥ
árcanty arkám ...

(the Maruts) "whose gifts are like a pillar (?), whose presents cannot be snatched away, who are ....., who are highly praised at the contests, sing their song..." and III.30.10

alātṛṇó valá indra vrajó góḥ
purá hántor bháyamāno vy àra

"The .... *vala*, the cow-pen, has in fear opened even before you struck, O Indra."

I still think that the meanings which best fit the two passages are 'irresistible' and 'without offering resistance'. A parallel for this double-sided meaning is V.32.3 *apratíḥ* 'irresistible' : *apratíni*, etc. 'without offering resistance' (K. 1955: 178). On account of its accent, the word may be a bahuvrīhi (*a-lātṛṇá-*) composed with a noun **lātṛṇa-*. An attempt has been made to explain this as an IE word (KEWA III: 807), but this is problematic because non-agent nouns in *-tar-* are very rare in Indo-Iranian (AiGr. II/2: 695; *vidhartari*, etc. 673) and *-na-* as a secondary suffix is equally rare (op. c. 734, see p. 81). Besides, a meaning 'restless' would seem particularly out of place in III.30.10. How great is the chance that in the two Rigvedic passages such a doubly anomalous Indo-Aryan word has been preserved? Those who want an etymology will object that this is no explanation, but is it realistic to expect one? As

things are, the odds are in favour of *alātṛṇá-* being a borrowing from a native source. If so, one has to acquiesce in the fact that all further speculations are inevitably mere guesswork.

7. DISSIMILATION

Apart from pp. 51-69, there are traces of dissimilation in loanwords. There is, however, no fundamental difference between dissimilation in borrowed and inherited words. Although apparently part of the process of adaptation, it is not a characteristic aspect of it. Only a particular case will here be discussed in passing.

The word *nicumpuṇá-* occurs in RV VIII.93.22 *apā́m jágmir nicumpuṇáḥ* (said of Soma) 'Er ist der sprudelnde (?) Besucher der Gewässer' (Geldner) and further in VS 3.48, 8.27, 20.18, KapKS 3.11 *ávabhṛta nicumpuṇa, nicerúr asi nicumpuṇáḥ*. The Black Yajurveda (except for KapKS) here reads *nicuṅkuṇa, -áḥ* (MS, KS) or *nicaṅkuṇa, -áḥ* (TS). For details see Vedic Concordance 119b, 549a. Keith (ad TS 1.4.45.2) translates 'flood'.

Dissimilation is not rare when *v* and *u* are preceded or followed by labial consonants. Debrunner was the first to recognize that the elision of *v* in *kṣip-* (for **kṣvip-*) and *śitipád-* 'white-footed', etc. (for **śviti-pád-*: *śvitrá-*) is due to the following *p*. There is some reason, however, to suspect that the preceding sibilant has also been a factor in this process. In the same way, indeed, *u* has sometimes been elided in the neighbourhood of *ṣ*, *ś*, *s* and *m* or *v*. Examples are RV *śmasi* 'we wish' (for *uśmasi*), *svásara-* 'pasture' (for **su-vásara-*), TS TĀ *pṛ́ṣvā-* 'a drop of water' (for MS+ *prúṣvā-*). Parallel to *śmasi* is Avestan *šma-* 'you' for **ušma-* (K. 1978: 20). When elision of *u* before two labial consonants was impossible, one of the consonants could be replaced by a guttural, e.g. TS *triṣṭúgbhiḥ, triṣṭúṅmukha-* (for MS KS KapKS *triṣṭúbbhiḥ*, KS KapKS *triṣṭummukha-*).

In this connection attention may be drawn to Ved. *stúkā-* (RV AB AV KauśS.) and *stupá-* (MS KS KapKS VS ŚB) 'a knot or tuft of hair or wool, thick curl of hair (esp. between the horns of the bull)'. The distribution is remarkable but there are exceptions: Śaun. 6.60.1 has *víṣita-stupa-* as against RV 1.167.5, Paipp. 19.14.4 *víṣita-stuka-*; KS 25.6, KapKS 39.4 have *ūrṇā-stukā-* (like AB. 1.28.28; **ūrṇā-stupa-* is not

attested) and ŚBM 3.5.3.4 has *stupá-* 'a crest-lock' but 3.5.2.18 (also ŚBK) *stúkā-* 'a wether's hair-tuft' and also *stukāsárgam* and *pṛthúṣṭukā-*. Cf. also TĀ 2.1.13. It is tempting to explain *stúkā-* as due to dissimilation but both the accent and gender and, on the other hand, Ossetic (Digor) *stug* 'lock of hair' point to the conclusion that, if the two words are cognates (KEWA III: 316), the split must date back to an early common Indo-Iranian period. Mayrhofer, l.c., rightly rejects the assumption of a root element **stu-*.

Similar cases are lex. *ulūpa-*, *ulupa-* (= RV *úlapa-* X.142.3) : lex. *ulūka-* n. 'bush, shrub, grass, the grass Saccharum cylindricum' (CDIAL 2357) and MS I.11.4 (165,16) *sámukṣitāḥ* for *sámubjitāḥ* (Mittwede 1987: 72). *sthagu-* n. 'hump on the back' (Rām. 2.9.36 crit. ed.); m. Harivaṁśa 71.31,32 (variant readings; also *sthaḍu-* in some mss) has long been connected with *sthapuṭa-* 'hunchbacked, unevenly raised, rugged, rough'; m. 'a hump, protuberance'. See Monier-Williams. Since *sthapuṭa-* can contain the suffix *-ṭa-* (p. 45), **sthapu-* can have been dissimilated to *sthagu-* (and *sthaḍu-*?), but the common conditions are here lacking, as *p* is only followed by *u*. Dissimilation *p* > *t* seems to underlie the *hapax legomenon* ŚBM *guṣṭitám* for *guṣpitám*, which survives in Panjabi *guṭṭhanā* 'to be twisted' (p. 61). Dr. Lubotsky pointed to *ṣṭhīvati* 'spits', for **sphīvati* (Latin *spuo*).

Since the general tendency in the neighbourhood of *u* is *p* > *k*, MS 3.14.5 *pulīkā-*, a kind of bird, is probably the original form of VS *kulīkā-* (but note MS 3.14.5 *kaulīká-*, as in VS 24.24). TS and VS also have a secondary form, cf. MS 3.14.2, 16 *pulīkáya-* (KSA 7.3 *pulīraya-*, Śaun. Paipp. *purīkáya-/pulīkáya-*) 'some kind of aquatic animal' as against VS *kulīpáya-*, TS *kulīkáya-*. See further VedVar. 79ff., which wrongly states that 'the original form cannot be determined' (see also AiGr. I *Nachtr.* 74, 158, Sharma 1959: 101, 197).

Different, again, is *kṣu-* < **pśu-* in RV *kṣumánt-* 'abounding in cattle' and *puru-kṣú-* 'rich in cattle': dissimilation of *p* - *m* and *p* - *p* (Thieme 1971:51) is correct but disregards the role of *u*. In *ulūka-* and AV YV+ *klóman-* 'the right lung' (: Greek *pleúmōn*) and (with **putl-* > *pukl-*) MS *púklaka-* (Hoffmann 1982: 86-90) no sibilant is involved, nor is it in **pnū-* > *knū-* 'to be wet' (AiGr. I *Nachtr.* 158).

This is also true of *nicumpuṇá-*, where the first *u* was followed by three labial phonemes. Just as *ubm* became *uṁm* in

TS *triṣṭúṅmukha-*, so *ump* in *nicumpuṇá-* has become *uṅk* in *nicuṅkuṇá-* (> TS *nicaṅkuṇá-*). The original form is, accordingly, *nicumpuṇá-* and the most natural analysis, from a purely formal point of view, is to take *ni-* as a prefix (see p. 42) and to connect *cumpuṇ-* as a prenasalized form (p. 37) with *cupuṇ-* in *cupuṇ́ikā-*, name of a Kṛttikā and the seventh brick (TS 4.4.5.1). This disposes of earlier suggestions (see AiGr. II/2: 483).

Indo-Aryan and Avestan may not have been the only languages in which such clusters as *ump*, *uṣm*, *uśm* were instable. The same tendency towards dissimilation seems to have operated in widely different areas. Latin *spūma* 'foam', with *ū* surrounded by two labial consonants and preceded by *s* is an interesting example. Its Germanic cognate **faima-* is attested in Old English *fām* and Old High German *feim* (surviving in Eng. *foam* and German *Feim*) and in Norwegian (dialectal) *feim* n. and *feime* m. A synonym **skūma-* partly overlaps the area of **faima-*. It is the only attested word for 'foam' in Middle Low German (*schūme*, *schūm* m.) and in Middle Dutch (*scūme*, *scuum* f.), but here there was up to the 16th century also a variant with a short *u* (*schom*), which has a parallel in Danish, Norwegian and Swedish *skum*. In Old High German *scūm*, m. (which survives in German *Schaum*) was used along with *feim*. Note that Old Norse *skūm*, quoted in some etymological dictionaries, is non-existent. The traditional derivation from **skeu-* 'to cover' ('vielleicht': Walde-Pokorny II: 548, Pokorny 951) is no more than a guess, which does not account for the disyllabic forms MLG *schūme*, MDutch *scūme* or for the interchange *ū/u* (which has wrongly been termed 'Ablaut'). It would seem that all details can be explained on the supposition that in the North of continental West Germanic Latin *spūma*, introduced by monks, has become **scūma/*scuma* (cf. MLG *schūme*, MDutch *scūme*), that it adopted in most places the masculine gender of *feim* (cf., e.g., German *der Moment* on the analogy of *der Augenblick*) and that it has spread to areas, both in the South (OHG *scūm*) and in the North (Scandinavian *skum*), where Old Germanic *feim* still was and partly remained in use. If so, MDutch *schūme* f. has preserved the original gender. For chronological reasons (OHG *scūm*), **scūma* must already have been adopted in Old Saxon (and possibly in Old Low Frankish) but, owing to the nature of the OS and OLF literary documents, no word for 'foam' occurs in them. The reason why here **fēm* was replaced by **scūma* may have been

the existence of **fēma*, attested in MLGerm. *vēme*, *veime* f. 'punishment, condemnation' (cf. HG *Feme*, *verfemt*, Dutch *veemgericht*), which was (or was to become?) a typically Westphalian institution. Old French *escume*, Port. *escuma* and Ital. *schiuma* are generally taken to be borrowings from German.

Note that in the same area **dūfan* 'to dive' (Old Engl. *dūfan*, Middle Low German *dūven*, Middle Dutch *bedōven* 'immersed') has become **dūkan* (Middle Dutch *dūken*, Dutch *duiken*, German *tauchen*), and that for the nasalized form **dumpan* (Dutch *domp(el)en* 'to plunge, immerse') German (dial.) has *tunken* 'to dive'. Similarly **dubno-* 'soil, bottom' (Old Church Slav. *dъno*) has become Lith. *dùgnas*.

V. THE FOREIGN ELEMENTS IN THE RIGVEDIC VOCABULARY

Polomé's words "However, the loans are still very few in the ṚgVeda" (1974: 6) may still reflect the common opinion. Never to my knowledge, however, an attempt has been made to produce a full list of all foreign words in the Rigvedic language. Arguments have sometimes been based on a single word or on rather vague general estimates ("some 200 words"). To get an idea of their frequency someone has to stick out his neck, even though it is certain that no other scholar will fully agree with him on every detail. The following list is, accordingly, a repertory of words which from *one* Indo-Europeanist's point of view (for the opinions of Indo-Europeanists appear to differ widely) have little or no chance of being of Indo-European origin. It should, however, be stressed at the outset that this is not a material that lends itself to a *strict* statistical treatment. Percentages, therefore, should not be taken as stern facts but only as an indication of what general conclusions can be drawn from this approach (see below, p. 95).

It must emphatically be repeated here what was written in the introduction: this study is not about etymologies and the criteria used are (more or less) independent of them. Thus *āṇi-* 'linchpin' has been listed as a foreign word, irrespective of whether it has been borrowed from Dravidian or not (DEDR App. 10), but exclusively on the ground that it cannot be explained as an Indo-Aryan word.

The main criterion for distinguishing inherited Indo-Aryan words from borrowings is morphological (e.g. *jána-* versus *kuṇḍṛṇācī-*) or phonological, but the context may sometimes be an additional reason for assuming a foreign origin, e.g. in the case of personal or tribal names. It can even be the only argument: *ánitabhā-* (V.53.9), name of a river, could from a morphological or phonological point of view perfectly well be taken as an Indo-Aryan *bahuvrīhi*. However, no acceptable etymology has been proposed, and in the context of the verse

mā́ vo rasā́ 'nitabhā kúbhā krúmur
mā́ vaḥ síndhur ní rīramat

it would seem probable that it was, like *kúbhā-* and *krúmu-*, a local river name that was adopted by the Indo-Aryans.

Between the two categories of clearly Indo-Aryan and non-Aryan words, however, there is a more or less 'grey zone', where conclusions are less certain. That *urvāruká-* 'cucumber' (AV *urvārū́-*) is a native Indian word, will not be contested. Different is *ū́vadhya-* 'undigested grass in the bowels of an animal killed for sacrifice', for which an IE origin is virtually excluded (because of *ūv-*) but which contains *-adhya-* that would be common in an IE word. Possibly this is due to a secondary Sanskritization, but this cannot be proved. It should further be kept in mind that one of the presuppositions upon which this list is based is that Rigvedic *-aṇ-* cannot stand for *-ṛṇ-*, nor, as a rule, *-aṭ-* for *-ṛṭ-* (see pp. 27, 72, 79). Clearly, 'foreign words' is a heterogeneous category, which also comprises words adopted before the Aryans penetrated into India. Words like RV+ *kadrū́-* (Avestan *kadrva.aspa-*), RV+ *kapóta-* (OPers. *kapautaka-*) and VS+ *godhū́ma-* (Avestan *gantuma-*) have of course been omitted but it is often impossible to distinguish between the different historical layers of borrowings.

Finally, there are the eternal puzzles, like *bála-* 'strength'. Many discussions fail to stress the fact that a matter of principle is involved: either the connection with OChSl. *bol'ьjь* 'greater, better' and Greek *beltíōn* is maintained. In that case we must acquiesce in the existence of a PIE phoneme /b/, virtually attested in only one word-group (for **kob-* 'to fall' [Szemerényi] only occurs in the 'Northern' group Celtic-German-Slavic). Or one accepts the absence of /b/ in the PIE consonant system: if so, the etymological connection with OChSl. *bol'ьjь* and Lat. *dēbilis* 'weak', however attractive, is impossible. However that may be, in the Rigveda *bála-* is not (yet) current (I[4] III[2] V[1] VI[1] VII[1] X[8]; all compounds and derivatives only once each in X: *bálīyān* and *báliṣṭha-* from the Brāhmaṇas onwards).

1. *akṣá-*. 2. *ákṣa-*. 3. *á-kharva-*. 4. *a-gadá-*.
5. *agástya-*. 6. *ajakāvá-*. 7. *ajā́saḥ* (VII.18.19). 8. *aṇvī́-*.
9. *atasá-*. 10. *ánitabhā-*. 11. *an-ulbaṇá-*. 12. *a-palāśá-*.
13. *apūpá-*. 14. *á-manda-*. 15. *amba*, etc. 16. *ámbara-*.
17. *ambarīṣa-*. 18. *ambhṛṇá-*. 19. *araṭvá-*. 20. *ararínda-*.
21. *ararú-*. 22. *arbudá-, árbuda-*. 23. *armaká-*.
24. *alātṛṇá-*. 25. *álina-*. 26. *avatá-*. 27. *a-śipadá-*.
28. *a-śimidá-*. 29. *aśvatthá-*. 30. *aśvathá-*. 31. *áṣatara-*.
32. *aṣṭhīvánt-*.
33. *ā-khaṇḍala-*. 34. *āṅgūṣá-*. 35. *āṇí-*. 36. *āṇḍá-*.

37. *āpayā́-*. 38. *āraṅgará-*. 39. *ā́l(ākta)-*.
40. *ikṣvākú-*. 41. *iṭánt-*. 42. *índu-*. 43. *íriṇa-*.
44. *ilībíśa-*.
45. *īṅkh-*.
46. *ukha(chíd)-*, *ukhā́* (?). 47. *udumbála-*.
48. *upajíhvikā-*. 49. *urvā́śī-*. 50. *urvāruká-*. 51. *úlapa-*.
52. *ulū́khala-*, *ulūkhalaka-*. 53. *úlba-*. 54. *uśīnárāṇī-*.
55. *uṣṇíhā-*.
56. *ūṅkh-*. 57. *ū́rdara-*. 58. *ū́vadhya-*.
59. *ṛbī́sa-*.
60. *emuṣá-*.
61. *ogaṇá-*. 62. *oṇí-*. 63. *odaná-*. 64. *opaśá-*.
65. *aulāná-*.
66. *kakárdu-*. 67. *káṅkata-*. 68. *káṭuka-*.
69. *kaṇūkayá-*. 70. *káṇva-*. 71. *katpayá-*. 72. *kapaná-*.
73. *kapardín-*. 74. *kabandhín-*. 75. *kamadyū́-*. 76. *kárañja-*.
77. *karambhá-*. 78. *karkándhu-*. 79. *karkarí-*. 80. *kaláśa-*.
81. *kalā́-*. 82. *kalí-*. 83. *kalmalīkín-*. 84. *kávandha-*.
85. *kaváṣa-*. 86. *kaśaplaká-*. 87. *káśā-*. 88. *kaśīká-*.
89. *kākambī́ra-*. 90. *kāṭá-*. 91. *kāṇá-*. 92. *kāṇuká-*.
93. *kānītá-*. 94. *kā́pā-*. 95. *kārotará-*. 96. *kāśí-*.
97. *kikidīví-*. 98. *kimīdín-*. 99. *kiyā́mbu-*. 100. *kíla*.
101. *kilā́sa-*. 102. *kílbiṣa-*. 103. *kī́kaṭa-*. 104. *kī́kasā-*.
105. *kī́ja-*. 106. *kīnā́ra-*. 107. *kīnā́śa-*. 108. *kīrí-*.
109. *kīrín-*. 110. *kīlāla-pā́-*. 111. *kī́sta-*. 112. *kúṭa-*.
113. *kúṇāru-*. 114. *kuṇḍa-pā́yya-*. 115. *kuṇḍṛṇā́cī-*.
116. *kútsa-*. 117. *kúpaya-*. 118. *kúbhā-*. 119. *kumárá-*.
120. *kurī́ra-*. 121. *kuruṅgá-*. 122. *kuru-śrávaṇa-*.
123. *kulā́ya-*. 124. *kúliśa-*. 125. *kuliśī́-*. 126. *kulphá-*.
127. *kuśiká-*. 128. *kuṣumbhaká-*. 129. *kū́ṭa-*. 130. *kūḍay-*.
131. *kū́la-*. 132. *kṛkadāśū́-*. 133. *kṛ́pīṭa-*. 134. *kṛ́śana-*.
135. *kenipá-*. 136. *képi-*. 137. *kévaṭa-*. 138. *kévala-*.
139. *kómya-*. 140. *kaulitará-*. 141. *kriví-*. 142. *krīḍ-*.
143. *krúmu-*. 144. *kṣumpá-*. 145. *kṣvíṅkā-*.
146. *khaja-kṛ́t-*. 147. *khadirá-*. 148. *khargálā-*.
149. *khála-*. 150. *khálu*. 151. *khādí-*. 152. *khārī́-*.
153. *khilyá-*. 154. *khṛ́gala-*. 155. *khelá-*.
156. *gáṅgā-*. 157. *gaṇá-*. 158. *gandhā́ri-*.
159. *gárgara-*. 160. *gárta-*. 161. *gálda-*. 162. *guṅgú-*, *guṅgū́-*. 163. *guṣpitá-*.
164. *caṣā́la-*. 165. *cā́ṣa-*. 166. *ciccíká-*. 167. *cúmuri-*.
168. *cedí-*.
169. *chā́ga-*. 170. *chúbuka-*.

171. *jañjaṇā-bhávat-*. 172. *jaṭhára-*. 173. *jáṭhara-*.
174. *jáṭhala-*. 175. *jáḍhu-*. 176. *jatrú-*. 177. *jábāru-*.
178. *jarā́yu-*. 179. *járūtha-*. 180. *jálāṣa-*. 181. *jálpi-*.
182. *jahnā́vī-*. 183. *jāhuṣá-*. 184. *jīmūtá-*.
185. *taḍít-*. 186. *tarantá-*. 187. *tárukṣa-*.
188. *tárya-*. 189. *táskara-*. 190. *tā́nva-*. 191. *tiríndira-*.
192. *tílvila-*. 193. *túgra-*. 194. *turī́pa-*. 195. *turphári-*.
196. *turvá(śa)-*. 197. *turvī́ti-*. 198. *tū́rṇāśa-*. 199. *tṛ́kṣi-*.
200. *tṛ́tsu-*.
201. *dundubhí-*. 202. *duḥśī́ma-*. 203. *dū́rvā-*.
204. *dṛ́bhīka-*.
205. *(maṇḍūra-)dhāṇikī-*. 206. *dhúni-*.
207. *naḍá-*. 208. *námī-*. 209. *námuci-*. 210. *náhuṣ(a)-*.
211. *nāḍī́-*. 212. *nicumpuṇá-*. 213. *niṇík-, niṇyá-*.
214. *niṣká-*. 215. *nihā́kā-*. 216. *nī́la-pṛṣṭha-*. 217. *nīhārá-*.
218. *páṭharvan-*. 219. *páḍbīśa-*. 220. *paṇí-*.
221. *parṇáya-*. 222. *parpharī́ka-*. 223. *párśāna-*.
224. *parṣá-*. 225. *palasti-*. 226. *palā́śá-*. 227. *pāṇí-*.
228. *pātalyà-*. 229. *píṅgā-*. 230. *píṭhīnas-*. 231. *píṇḍa-*.
232. *pipīlá-*. 233. *píppala-*. 234. *pípru-*. 235. *piśā́ci-*.
236. *pīḍ-*. 237. *pīyū́ṣa-*. 238. *puṇḍárīka-*. 239. *púṇya-*.
240. *púraya-*. 241. *purukútsa-*. 242. *púṣkara-*. 243. *púṣya-*.
244. *(śāci-)pūjana-*. 245. *pūrú-*. 246. *pṛthi-, pṛ́thī-*.
247. *pṛ́dāku-*. 248. *prakaṅkatá-*. 249. *prakala-(víd-)*.
250. *prapharvī́-*. 251. *prámaganda-*. 252. *práskaṇva-*.
253. *platí-*. 254. *plāśí-*.
255. *phaṇ-*. 256. *phárvara-, phā́riva-* (etc.).
257. *phála-*. 258. *phaligá-*. 259. *phalgvà-*. 260. *phā́la-*.
261. *bákura-, bākurá-*. 262. *báṭ, baḍā́*. 263. *batá-, bata*. 264. *bárjaha-*. 265. *bála-*. 266. *balí-*. 267. *balbaja-(stukā́-)*. 268. *balbūthá-*. 269. *baṣkáya-*. 270. *bastá-*.
271. *básri*. 272. *bāṇá-*. 273. *bíla-*. 274. *bílma-*. 275. *bisa-(khā́-)*. 276. *bī́ja-*. 277. *bī́riṭa-*. 278. *bundá-*. 279. *busá-*.
280. *bṛbád-(uktha-)*. 281. *bṛbú-*. 282. *bṛ́būka-*.
283. *bṛ́saya-*. 284. *bekanā́ṭa-*.
285. *bhala*. 286. *bhalānás-*.
287. *maṇḍū́ka-, maṇḍūkī́-*. 288. *maṇḍūra-(dhāṇikī-)*.
289. *mayū́ra-(roman-), mayū́rī-*. 290. *mála-*.
291. *maśarśā́ra-*. 292. *mī́l-*. 293. *mukṣī́jā-*. 294. *muñja-(néjana-)*. 295. *múdgala-, mudgalā́nī-*. 296. *meḍī́-*.
297. *maujavatá-*.
298. *yákṣu-*. 299. *yádu-, yā́dva-*. 300. *yayā́ti-*.
301. *yā́śu-*.

302. *rají-*. 303. *rapsúd-*. 304. *rā́kā-*. 305. *rā́ṇḍya-*.
306. *rāspiná-, rāspirá-*. 307. *rúma-*. 308. *rúru-(śīrṣan-)*.
309. *rúśama-, ruśáma-*. 310. *ropaṇā́kā-*.
311. *lalāmī́-*. 312. *lā́ṅgala-*. 313. *líbujā-*.
314. *vā́ṁsaga-*. 315. *vā́ṅgṛda-*. 316. *vaṭūrín-*.
317. *vaníj-*. 318. *vāṇá-*. 319. *vā́ṇī-*. 320. *vā́ṇī-* (music).
321. *vinaṁgṛsá-*. 322. *vipā́ś-*. 323. *vibhī́daka-*.
324. *viśpálā-*. 325. *viṣṇāpū́-*. 326. *vṛcayá-*. 327. *veṇú-*.
328. *vetasú-*. 329. *vairiṇá-*. 330. *vaila-(sthāná-)*.
331. *vaiśantá-*.
332. *śakaṭī́-*. 333. *śakuná-, śakúni-, śakúnti-*.
334. *śāṇḍika-*. 335. *śátri-*. 336. *śabála-*. 337. *śámba-*.
338. *śámbara-, śāmbará-*. 339. *śāryāta-, śāryātá-*.
340. *śārvarī-*. 341. *śalmalí-*. 342. *śāṇḍá-*.
343. *śā́tapanta-*. 344. *śāmulyà-* or *śāmulī́-*. 345. *śiṁśápā-*.
346. *śiṁśumā́ra-*. 347. *(varā́-)śikha-*. 348. *śígru-*.
349. *śiñjā́ra-*. 350. *śíphā-*. 351. *śimbalá-*. 352. *śimbā́ta-*.
353. *śímyu-*. 354. *śíriṇā-*. 355. *śirímbiṭha-*. 356. *śī́pāla-*.
357. *śíṣṭa-*. 358. *śutudrī́-*. 359. *śúnā-(sīra-)*. 360. *śulká-*.
361. *śuśulū́ka-*. 362. *śóṇa-*.
363. *sáktu-*. 364. *ságara-*. 365. *sáṅkā-*. 366. *sarámā-*.
367. *saráyu-*. 368. *salalū́ka-*. 369. *sasá-*. 370. *sasarparī́-*.
371. *sāpyá-*. 372. *sālā-(vṛká-)*. 373. *siṁhá-*.
374. *sinīvālī́-*. 375. *sílika-(madhyama-)*. 376. *sīrā́-*.
377. *sīlámāvant-*. 378. *su-kiṁśuká-*. 379a. *sūrmī́-* (VIII.69.12 'eine Röhre'). b (VII.1.3 '*lohamayī jvalantī sthūṇā*', Mahīdhara ad VS 17,76, cf. comm. ad TS I.5.7.6).
380. *sṛ́ñjaya-*. 381. *sṛ́binda-*. 382. *stegá-*. 383. *sthiví-*.

VI. EPILOGUE AND CONCLUSION

1. At the end of this long tentative list of borrowings it may be useful to dwell for a moment on the psychological background of the dogged resistance that still appears to exist to accepting foreign elements in Sanskrit. It was pointed out above (p. 3) that in the 19th century Sanskrit used to be taught also as part of comparative IE studies and that within this framework Sanskrit was traditionally the model IE language. For those who studied the language in this perspective the idea that Sanskrit might have been deeply influenced by foreign languages of an entirely different character was outside their range of thought. There was an element of compulsory thinking in their approach, as if *all* aspects of the language must be Indo-European. In PIE linguistics Sanskrit has long lost its central place. The time has now come to realize that also the perspective was a false one, as it ignored the fact that the Rigvedic language was also an Indian language, part of a developing linguistic area.

It should not be forgotten that it was Indo-Europeanists who began to study the non-Aryan languages of India, because to them it was quite evident that a not inconsiderable part of the Sanskrit vocabulary could not possibly be of IE origin. The preceding list was drawn up from an Indo-Europeanist's point of view. Etymologizing such words (which according to some is "an act of faith") is one thing; sifting them out from the entire vocabulary is quite another one, and no experienced Indo-Europeanist with a sharpened eye for this problem will have much doubt in respect of words outside the 'grey zone'. The main point is that it should be recognized that Sanskrit had long been *an Indian language* when it made its appearance in history. The adaptations to foreign linguistic patterns cannot be dismissed. The occurrence of non-Aryan words in the Rigveda is, therefore, a purely natural phenomenon to which one should not shut his eyes. The Rigvedic language had more than one surprise up its sleeves for its students. I may be permitted to repeat a few words written some twenty years ago: "A language in which simultaneously Dravidian calques arose and Indo-European laryngeals were still pronounced [viz. in *tanúam*, *súar*] was more progressive and, at the same time, more archaic than could be imagined a few decades ago."

2. Only in passing mention may be made of the archaeological aspects, because they do not provide any evidence in regard of the language spoken by the people whose material vestiges have been detected. It is instructive, however, to see what image an archaeologist, who is free from the linguist's prejudices, presents of the past. Note, for instance, F.R. Allchin 1982: 332: "The Indus legacy survived and was passed on more widely at the fold and village level, in almost all regions, while the learned tradition mainly survived in the Panjab, whence it spread eastwards with the spread of settlements in Post-Harappan times. *The surviving tradition, an amalgam of Indus and Aryan elements* (italics mine, K.) was already active before the re-emergence of cities in the Ganges valley and in North India more generally during the first millennium B.C., and served as the ideological basis upon which the cities produced their own distinctive ideology."

3. In order to establish the percentage of foreign words one must know the total number of 'words' in the Rigveda. This, however, is open to debate. Simply counting the entries, including all the compounds (e.g. 30 with *indrá-*, 69 with *purú-*, more than 300 with *su-*) would not make sense. In excluding the compounds and only counting the non-compound words (including, a bit illogically, the derivaties in *-vant-/-mant-* and *-in*, so as not to overstrain the argumentation), 100 columns, taken at random in Grassmann's dictionary, turned out to contain 244 'words' thus defined. Since the sum total of the columns is (1686 + 26 =) 1712, the total number of 'words' *stricto sensu* would amount to (17,12 x 244 =) 4177. According to this calculation the approximately 380 foreign words would be nine per cent of the vocabulary thus defined. To check this result I have twice repeated this calculation by taking at random 100 other consecutive columns. The result was 342 words (sum total 5855 words) and 260 words (sum total 4451 words). The percentages in these cases were 6.4% and 8.5% respectively. The average of the three calculations is, accordingly, some eight per cent (7.9%). Some of the 380 words will no doubt be contested, although I have tried to eliminate words for which an Indo-Aryan explanation is not excluded. Even if one would cut down their number to 300, the percentage would still be 7.1%, respectively 5.4% and 6.6%, accordingly 6% on the average. On the other hand, the sum total of words *stricto sensu* is no more than a rough estimate. One will therefore be on the safe side when stating that at least five per cent of the Rigvedic lexemes

(*stricto sensu*) is of foreign origin. Referring to these words as 'exceptions' would seem unjustified.

4. What, then, can the 'Aryan' character of the Rigvedic society have meant? As stated above, if even in the Rigveda, notwithstanding its very particular nature, a list can be drawn up of *at least* 35 non-Aryan names of persons, families and peoples who took part in Vedic social life, we can be sure that this is only the tip of the iceberg. In modern Western societies acculturation can be a fast process. Owing to the school system the second generation of immigrants may already adopt the dominant language of the society into which the parents have been received. In Rigvedic times the process of Aryanization was in all likelihood much slower. The native peoples did not have to accomodate themselves to new surroundings as they were firmly rooted in their dwelling-places and probably were in the majority. The contact with the community of Indo-Aryan speakers must primarily have been maintained by bilinguals, particularly among the lower strata of artisans and peasants (an aspect often overlooked by Vedists) and these must have been the essential factor in conforming the Vedic language to foreign patterns of the Indian linguistic area. There is no denying that most of the foreign words in the Rig- and Atharva-veda are rare or *hapax legomena*. They may have popped up at a certain moment and in a certain area but they testify to the fact that there was a steady influx of foreign words.

The inherited Vedic *culture*, however, must for a long time have remained dominant, notwithstanding the foreign influence that made itself felt: a foreign myth could only be adopted by transforming it into an Indra-myth and non-Aryan sorcerers were incorporated and became Vedic *ṛṣi*s, authors of a separate collection of hymns. All the persons and groups mentioned in ch. I participated in the same cultural life. As a sociological term 'Aryan' denotes all those who took part in the sacrifices and festivals. There is nothing novel in this definition. Not always, however, may it have been realized that many among these 'Aryans' had non-Aryan names and that this fact points to some inescapable conclusions. Statements to the effect that the Rigveda was no longer purely Aryan (Gurov 1987:38) are therefore correct to the extent that they refer to the language and the ethnic components: both were 'Aryan'. *Culturally*, however, the Rigvedic society was Aryan without quotes, but this reveals how ambiguous the term is.

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VIII. INDEX OF SANSKRIT WORDS

agásti-, agástya- 7, 18, 60
aṅkoṭ(h)a- 26
aṅkol(l)a- 26
aṅgoṣín- 19, 23
accharā- 35
áṇva-, -ī- 79
átikulva- 66, 69
átka- 58
attikā- 59
atsárā- 35
adbhíḥ 52
ánitabhā- 89
ánu- 7
anulbaṇá- 81
antikā- 59
andolay- 44
apalāśá- 46
apūpá- 14
ámba 63, 68
ambarīṣa- 6, 46
ambāḍe 63
ámbāli(ke) 45, 63
ambu- 63
ambhaṇa- 64, 74, 81, 83
ambhṛṇá- 64, 68, 74, 83
araṭvá- 27, 33
áradu- 33
arámaṇas- 52
arámati- 52
arcanā́nas- 46
artikā- 59
árbuda- 22
armaṇa- 63-4, 74
arvīṣa- 40
alagard(h)á- 47, 60, 74
alātṛṇá- 81, 84-5
aligard(h)a- 47, 60
álina- 7
avaṭá- 46
áṣatara- 25
ākenipá- 41
ākhaṇḍala- 41
āghāṭí- 19, 27
āṅgūṣá- 19, 23, 25, 46
āḍambara- 41
āṇí- 14, 79, 89
āndolay- 41, 44
ābayú- 33
āraṅgará- 41, 46
ālakā- 60
áligī- 47, 60, 74

ikkaṭa- 57
ikṣvākú- 7
icikila- 41, 53
iṭánt- 7, 27
itkaṭa- 42, 57
índu- 14
irimbiṭhi- 6, 20, 25
ilībíśa- 41, 46

úgaṇa- 23, 48, 80-1
uṅkaṇa- 42
uṅkuṇa- 42, 57
ucciṅgaṭa- 42
ucciṭiṅga- 42, 53
ucchiṅkhana- 83
ucchiṅghana- 82
uḍumbara- 33
utūla- 38
utkaṭa- 42, 57
utkuṇa- 22, 42, 53, 57
utkūṭa- 42
udumbára- 22, 33, 41
udumbalá- 22, 41
uddāla- 38
upaśiṅghana- 82
úmā- 39
uruvu- 42
urvāruká- 90

urvārū- 90
úlapa- 86
ulūka- 86
ulūkhala- 14, 41
ulūta- 38
ulūpa- 86
úlmuka- 45, 65
uśīnára- 7
uṣṇíhā- 47

ūrdara- 14
ūrṇā-stukā- 85
ūvadhya- 90

ṛcchárā- 35
ṛ́bīsa- 14, 25, 40

emuṣá- 18, 62

ailūṣa- 7, 25

okaṇa- 22, 42, 57
okkaṇī- 22, 42, 57
ogaṇá- 23, 48, 80-1
odaná- 14
opaśá- 14, 29, 42

kakāṭa- 27, 29
kakāṭ ikā- 29
kakkaṭa- 67
kaṅkaṭa- 45
káṅkata- 43
kacchū- 25, 49, 59
káṭa- (straw mat) 30
kaṭa- (grass) 42, 49, 57
káṭuka- 27-29
kaṭha- 43
kaḍá- 30
káṇa- 79
kaṇḍū- 40
káṇva- 7, 16, 43, 53, 80
katkaṭá- 67
katpayá- 68
kadumbarī- 41
kadrū- 90
kadrūka- 71
kandamūla- 43
kandila- 43
kaparda- 14
kapāṭa- 26
kapóta- 90
kabandhín- 34
kambhārī- 64, 71
karā- 30
kárañja- 46
karaṭa- 45
karambita- 63
karambhá- 14, 63
karavīra- 42
karásna- 81
karkarī- 19
karkaśa- 53
karkoṭaká- 41-2, 44
kartá- 14, 28, 36, 50, 72-3
kardaṭa- 45
kalá- 30
kalama- 67
kaláśa- 14
kalí- 7, 20
kaluṣa- 26
kalka- 24
kávandha- 14, 34
kaváṣ-, *kaváṣa-* 25, 26
kavaṣa- (*ailūṣa-*) 7, 16, 20, 26
kavāṭa- 26
kaṣ- 25, 59
kaṣāya- 46
kasanā 82
kasarṇī́la- (*-ra-*) 82
kastīra- 41-2, 53, 60
kāṭá- 14, 27-8, 36, 72-3
kāṇá- 79
kārotará- 14
kārṣmaryà- 64, 71
kāvarṣeya- 71

kāśí- 14
kāśmarī- 64, 71
kitavá- 28, 79
kiṣkuru- (*kiḥkuru-*) 27, 69
kíkaṭa- 27
kīnáśa- 14, 26, 46
kīnáśa- 14, 26, 46
kīrín- 20, 31, 48, 77-8
kīla- 50
kīlāṭa- 45
kīlála- 14, 45
kīstá- 20, 23, 25
kukkuṭa- 59, 68
kuk(k)ura- 58-9
kúṭa- 14, 27
kuṭīra- 31
kuṭṭanī- 31
kuḍmala- 65, 68
kuḍyamatsī- 83
kuṇa- 42, 53, 57
kuṇḍá- 14
kuṇḍalī- 38
kuṇḍṛṇáćī- 83, 89
kútsa- 7, 43
kud(d)āla- 38, 60
kudrīcī- 72
kudrūṣa(ka)- 71
kunti-, *kuntī-* 44
kunda- (*-duru-*) 44
kúpaya- 46
kubjá- 31
kúbhā- 89
kubhrá- 31, 48
kumpala- 65
kumbhāṇḍa- 64
kuraṇṭa- (*-ṇḍaka-*) 44
kurala- 39
kuríra- 14, 29-31
kuru 79
kurukanda(ka)- 43
kuruṅgá- 6, 17
kurula- 39
kurkuṭa- 58
kurkurá- 58, 67
kulấya- 14
kúlāla- 45
kúliśa- 14
kulíkā- 86
kulīpáya- 86
kulūṭa- (*-ta-*) 38
kulphá- 35
kúlmala- 65, 68
kulmāṣa- 65
kulva- 66
kulharī- 66
kuvaṅga- 42
kuvalaya- 46
kúśara- 42
kuśiká- 7
kuśīlava- 20, 42
kuṣṭha- (leprosy) 60
kúṣṭha- 48, 60, 62
kuṣmāṇḍa- 64
kusitấyī- (*-dấyī-*) 23
kusur(u)bínda- 40-3
kústā- 23
kustumbarī- 60
kustumburu- 41, 53, 60
kūcī- 59
kűṭa- 14, 27
kūḍay- 27, 75-6
kūra- 75
kūru- 75
kūrcá- 59, 68, 70
kūrd- 60, 76
kūrdāla- 60
kūrpāsa- 61
kūḷay- 76
kūśmá- 64, 71
kūṣmá- 64, 71
kūṣmāṇḍa- 64
kṛkalāsá- 26
kṛ́kāṭa- 29
kṛ́pīṭa- 14, 27, 46
kṛ́śana- 14
kenipá- 41

kévaṭa- 14, 27, 46
koṭira-, koṭīra(ka)- 30
kodaṇḍa- 42
kodrava- 71
koradūṣa- 25
kolūta- 38
kovidāra- 38
kóśa- 14
kośātakī- 23
kaulālá- 45
kaulīká- 86
kausitá- (*-dá-*) 23
knū- 86
kramuka- 29, 70
krīḍ- (*krīḷú-*, etc.) 20, 27, 50, 73, 76-8
krúmu- 89
krūḍay- 75-6, 78
krūra- 75
kroḍá- 75
klóman- 86
kṣip- 85
kṣumánt- 86
kṣumā- 39
kṣoḍa- 39, 57
kṣauma- 39
kṣvel- (*kṣveḍ-*) 77

khaṭa- 49, 57
khaṭṭikā- 57
khaṭvā- 57, 60
khaḍa- 49
khadā- 50, 73
khara- 49
kharapaṭa- 24, 67
kharjū- 25, 49, 59
kharpara- 24, 67
kharva- 42
khala- (rogue) 49
khála- (threshing-floor) 14, 49
khādí- 14
khilyá- 14
khíla- 49

khṛ́gala- 14
khūrd- 60

gaḍu- 71
gaṇḍūṣa- 47
gaṇḍola- 47
gadrūka- 71
gandhā́ri- 7
gambhārī- (*-ikā-*) 64, 71
gárgara- 19
gárta- (hole) 35-6, 49, 59, 72-3
gárta- (seat) 14, 32, 59, 68
gardabhá- 32
gúggulu- 68
guḍūcī- 72
gu(m)ph- 56, 62
gúlgulu- 68
gulphá- 35
gulphitá- 51, 56, 58, 61, 68
gulma- 65
guṣṭitá- 61, 86
guṣpitá- (*guḥpitá-*) 27, 51, 56, 61, 68-9, 86
gūd- 60
gūrd- 60
gūrda- 60
gṛṇé 82
gṛṣṭí- 35
gṛṣṭha- 82
goḍimba- 42
goḍumba- 42
godhū́ma- 90
gona- 81

ghusuṇḍī- 23
ghusṛṇa- 70, 82
ghoṣaka- 23

cakkulī- 55-6
candrila- 71
capaṭa- 45

capeṭa- 54
camū́- 14
camríṣ- 14
carpaṭa- 38, 45, 53, 61, 74
caṣā́la- 25, 45
cā́ṣa- 25
cikila- 41, 53
cikka-, *cikva-*, etc. 57
cikhalla- 41
ciṅgaṭa- (*-ḍa-*) 42
cicciṭiṅga- 42, 53
ciṭiṅga- 53
cipiṭa- 37, 54
cipiṭanāsa- 32
cirpita- 38, 54
cīpadrā- 44
cīpúdru- 44
cībala- 44
cīra- 60
cupuṇḱā- 42, 45, 87
cedí- 7
caivalā- 44
coḍra- 71
cauḍra- 71

jáṅgiḍa- 27-8, 47, 73
jaṭhára- 27
jáṭhara- 27
jáṭhala- 27
jáḍhu- 27
jálāṣa- 25-6, 46
jāṣkamadá- (*jāḥk-*) 25, 27, 69
jinvár āvŕt 82
jīvitṛtamaḥ 82

ṭagara- 32
ṭaṅka(ṇa)- 32-3
ṭaṅga(ṇa)- 32

ḍulī- 53, 72, 75

tagara- 50
tárukṣa- 6
tarpa-, *talpa-* 61
tarpara- 72
táskara- 46, 67
tiríndira- 6
tílvila- 14
tīra-, *tīvra-* 53, 60
tukkhāra- (*tuḥkh-*, etc.) 69
tumbarī- 60
tumburu- 53, 60
turak(v)a- 54
turaṣka- 54
turuṣka- 54, 56
turphári- 40, 42
turphárītu- 42
turvá(śa)- 7, 17, 46
turvī́ti- 7
tuṣāra- 69
tū́rṇāśa- 46
tŕtsu- 7
triputā- 70
triṣṭúgbhiḥ 52, 85
triṣṭúṅmukha- 85, 87
trīśaṭa- 74

dámūnas- 46
dambholi- 26, 47
darbhapuñjīlá- 62
dāḍimī- 74
dālbhūṣī- 18, 25-6, 47, 61-2, 75
duḍī- 72, 75
dundubhí- 19
duru(ḥ)pha- 69
durhaṇāyú- 80
dūlāsa- 74
dŕbhīka- 45
devŕkāma- 82
doṅgarikā 70
dolāy- 41
dramiḍa- (*-ḷa-*) 71, 74
draviḍa- (*drāv-*) 71, 74
drávinas- 46
drāḍimī-mukulī- 74

druṇāsa- 74
druṇī- 72, 75
drumbhūlī́- 18, 26, 47, 61, 75
dreṣkāṇa- (*drekk-*) 54, 74
drogarikā 70

-dhāṇikā- 80

narmaṭha- 29, 74
naścīrapati- 70
nāḷī́- 19, 27
nikurumba- 42
nikharva- 42
nicuṅkuṇa- 85, 87
nicumpuṇá- 42, 85, 87
nibiḍá- 31-2, 38
nibirīsá- 25, 31-2, 48-9
nirguṇḍī- 59
niḥkhídam 70
nihā́kā- 46
nīhārá- 46

pakkaṇa- (*pakv-*, *pakṣ-*) 51, 56
páṭharvan- 27
páḍbīśa- 33
paṇaphara- 74
paṇí- 19
párṇaka- 46
parṇáya- 46
parpaṭa- 61
parpharat 42
parpharī́ka- 42, 45
palāśá- 46
pāṣāṇa- 25
pāṣī́- 25
píṅgā- 19
piñjaṭa- 23, 46-7
piñjara- 62
píñjūṣa- 23, 46-7
píṭhīnas- 7, 27, 46
píṇḍa- 14
pitvá- (*pidvá-*) 23, 35
píppala- (*píṣp-*) 14, 27, 61, 68
piplu- 61
pīḍ- 27
pīyū́ṣa- 46
pukkaśa(ka)- (*pukv-*) 51, 54-6, 58
púklaka- 86
puṁgala- 58
puṭa- 43
puṇḍarī́ka- 45
pudgala- 55, 58
puṁnāṭa- 43
púraya- 6, 46
purīkáya- 86
purukútsa- 20, 40, 43
purukṣú- 86
pulī́kā- 86
pulkasa(ka)- 51, 54-6, 58
púṣkara- 67
puṣkalá- 55, 67
puṣkasa(ka)- 51, 54-6
puḥpa- 69
pūrú- 7
pūlikā- (*-lī-*) 43
pṛthúṣṭukā- 86
pṛṣṭhavā́ḍ 82
pṛ́ṣvā- 85
peñjūṣā- 23, 47
pétva- 23
paulkasá- 58
prakaṅkatá- 43
pracībala- 34, 43
praputa- 43
prapuṁnāṭa- (*-āḍa-*) 43
prapunāḍa- 43
prapūlikā- 43
prapharvī́- 23, 29, 43
prábhlīna- 33
prámaganda- 7, 43
pravaṅga- 43
pravāḍa- (*-āla-*) 70
pravira- 43

pravela- 43
práskaṇva- 7, 16, 41, 43, 53, 67, 80
prúṣvā- 85

phaṭa- 51
phárvara- 23, 42-3, 46
phắriva- 23-4, 43
phắla- 14

bákura- 19
bajá- 61
báṭ 27
barkara- 57-8
bárjaha- 47
barbura- 61
bála- 90
balivárda- (*-nda-*) 60, 73-4
bálkasa- 58
bálbaja- 58, 61
balbūthá- 6
baṣkáya- 25, 27, 46-7, 57-8, 67
báṣkiha- 46-7, 57
básri 34
bāṇá- 80
bāṇá- (music) 33
bāṣkali- 57
bāṣpa- 62, 69
bidva- 35
bíla- 14
bílma- 14
billa-, *bilvā-* (Asa foetida) 66
bílva-, *bilvà-* (Aegle Marmelos) 66, 69
biṣkali- (or *-lā-*) 33, 55
bísa- 25, 31, 33, 63
bǐ́ja- 14, 29
bǐ́riṭa- 14, 27, 31, 46
bukkasa- 54
bundá- 18
bulvá- 65, 69
busá- 25, 31, 63
bṛbú- 6
bṛ́būka- 45
bṛ́saya- 25, 46
bekanắṭa- 19, 27, 46
baindá- 40
bruḍita- 74

bhaṇṭākī- 63
bhaṇḍi- 63
bhalānás- 7, 46
bhiṣaṇṭaka- 33, 63
bhṛkuṭī- 44
bhrakuṭī- 43-4
bhrukuṭī- 43

magguśa- 58
mańku- 67
mańgu- 67
mańgura- 58
matkuṇa- (elephant) 57
matkuṇa- (bug) 41-2, 44, 53, 57
matkoṭaka- 58
madgú- 67
madgura- 58
madguśa- 58
markoṭa-pippīlikā- 58
malla- 57
malvá- 66, 69
malhắ- 66, 69
maśarśắra- 6
maṣmaṣắ (*masmasắ*) 82
masṛṇa- 70, 82
māndāryá- 7, 20
mil- 31
mīl- 24
mukunda- (*-ndu-*) 44
mukula- 52, 58
mukuṣṭha- 58
muńga(ṭa)- 67
mucúkunda- 44
mutkala- 67
mudgá(ṣṭha)- 58, 67
mudgara- 52, 58

múdgala- 7, 20, 67
múhu(r) 79
mū́la- 14
mṛsmṛsā́ 82
meḍí- 27
mela- 31
mainālá- 45
moraṭa- (*-ṇa-*) 46
moraṭā́- 46
mlecchá- 24

yádu- 7, 17
yávāṣa- 26

raṅga(da)- 33
rā́ndryā 71-2
rāspiná- 26, 46
rāspirá- 26, 46
riṣpha- (*riḥ-*) 69
rúma- 7
ruvu- 42
rúśama- 7, 22

lā́ṅgala- 14

vakkasa- (*vakv-*) 58
vakrá- 58
vaṅga- 42-3
váṅgṛda- 27-8, 47, 73
vaṭūrín- 27
vatsyāmi 52
vadhasná- 81
varvūra- 61
vavvola- 61
vā́ṣaṭ 27
vāṇá-, *vā́ṇī-* 19, 80
vā́ṇī- (swingle tree) 14
vāmamoṣá- 62
vā́rkali- 57
vāḥpa- 69
vikaṭa- 27-8, 79
vikiridra- 72
vigulpha- 61
víligī- 47, 60
viśikhá- 14
viṣaṇḍa- 33, 63
viṣkali- 55-6, 67
vīra- 42
vuḍita- 74
vṛkká- 58
vṛcayā́- 46
vṛntāka- 63
vera- 43
vailasthāná- 34
vyákṛḍa- 72
vruḍita- 74

śakaṭī́- 14, 27
śakúni- 44
śakúnti- 44
śakunda- 44
śakuli- 55
śatábalśā- 33
śabála- 30
śará- 42
śarkóṭa- 41-2, 44
śárvarī- 30
śalmalí- 29, 65
śaṣkulī- (*śaḥk-*) 54, 56, 59, 69
śáṣpa- 62
śaṣpíñjara- 62, 68
śā́ṇḍa- 6
śāmulyà- 29
śā́rkoṭa- 41
śā́luḍa- 27
śiṁhāṇa- 82
śígru- 7
śiṅgh- 82
śiṅghāṇa(ka)- 82
śitipád- 85
śitpuṭá- 61, 68
śithirá- 28, 79
śimṛḍī- 73
śimbalá- 65
śimyuṭa- 68

śirímbiṭha- 6, 18, 20, 25, 27
śĺpāla- 23, 34, 43, 45
śĺṣṭa- 7, 71
śṛṅgavera- 83
śṛṅghāṇikā (*śṛṅkh-*) 82-3
śepāla- (*śeph-*) 44
śévala- 23, 34, 44
śailūṣá- 20, 25, 42
śaivāla- 43
śmasi 85
śmīl- 24

ṣṭhĺv- 86
ṣvakk- (*ṣvaḳk-*) 69
ṣvask- 69

saṁsṛ́dbhiḥ 52
sakuruṇḍa- 44
sámukṣitāḥ 86
sasarparí- 19
siṁhāṇa(ka)- 82
sikatā- 35
sigatā- 35
siṅghiṇī- 82
sidhma(lá)- 68
sĺra- 14
sukiṁśuká- 29
supalāśá- 46
sṛká- 35
sṛkaṇḍu- 40, 44
sṛgávant- 35
sṛ́ñjaya- 7
sṛ́binda- 40, 43-4
stúkā- 85-6
stupá- 85-6
straíṇa- 81
sthakara- 50
sthaga- 50-1
sthagay- 50
sthagara- 50
sthagita- 50
sthagu- 86
sthaṇḍila- 50
sthapuṭa- 86
sthika- 50
sphaṭa- 51
sphuṭa- 51
svásara- 85

hariṇadru- 71
harmuṭa- 68
hiḍimba- 44
hindolay- 41, 44
hurula- 39
hrűd(r)u- 72

IX. ABBREVIATED TITLES OF SANSKRIT WORKS

AB: Aitareya-Brāhmaṇa
AitAr.: Aitareya-Āraṇyaka
Āpast.Dharmas.: Āpastamba-Dharmasūtra
ĀpMB: Āpastamba-Mantrapāṭha
ĀpŚS: Āpastamba-Śrautasūtra
AśvŚS: Aśvalāyana-Śrautasūtra
AV: Atharva-Veda
Bhāvapr.: Bhāvaprakāśa
BHSkt.: Buddhist Hybrid Sanskrit
BKŚS: Bṛhatkathāślokasaṁgraha
ChUp: Chāndogya-Upaniṣad
Daśak.: Daśakumāracarita
Deśīn.: Deśīnāmamālā
Dharmaśarm.: Dharmaśarmākhyudaya
GopB: Gopatha-Brāhmaṇa
Hariv.: Harivaṁśa
Hem(ac).: Hemacandra (Abhidhānacintāmaṇi)
HirGS: Hiraṇyakeśi-Gṛhyasūtra
Hitop.: Hitopadeśa
JB: Jaiminīya-Brāhmaṇa
Kathās.: Kathāsaritsāgara
KātyŚS: Kātyāyana-Śrautasūtra
KapKS: Kapiṣṭhalakaṭha-Saṁhitā
KS: Kāṭhaka-Saṁhitā
KSA: Kāṭhaka-Saṁhitā, Aśvamedha (KS 41-53)
KauśS: Kauśikasūtra
LāṭyŚS: Lāṭyāyana-Śrautasūtra
Madanav.: Madanavilāsa
MārkP.: Mārkaṇḍeya-Purāṇa
Med.: Medinīkośa
Mhbh.: Mahābhārata
Mṛcch.: Mṛcchakaṭikā
MS: Maitrāyaṇī-Saṁhitā
Paipp.: Paippalāda-Saṁhitā
Pāṇ.: Pāṇini
Pañcat.: Pañcatantra
Pār(ask)GS: Pāraskara-Gṛhyasūtra
PB: Pañcaviṁśa-Brāhmaṇa
Prabodh.: Prabodhacandrodaya

Rājat.: Rājataraṅgiṇī
Rām.: Rāmāyaṇa
RV: Ṛgveda
Śāṅkh.Ar.: Śāṅkhāyana-Āraṇyaka
ŚārṅgS.: Śārṅgadhara-Saṁhitā
Śaun.: Śaunakīya-Atharvaveda
ŚB: Śatapatha-Brāhmaṇa
ŚBM: Mādhyandinīya-Śatapathabrāhmaṇa
ṢB: Ṣaḍviṁśa-Brāhmaṇa
Śiś.: Śiśupālavadha
Suśr.: Suśruta
ṢV: Sāmaveda
Śvetāśv.Up.: Śvetāśvatara-Upaniṣad
TĀ(r): Taittirīya-Āraṇyaka
TB: Taittirīya-Brāhmaṇa
TS: Taittirīya-Saṁhitā
VarBS: Varāhamihira-Bṛhatsaṁhitā
VS: Vājasaneyi-Saṁhitā
Yājñ.: Yājñavalkya
Yaśast.: Yaśastilaka
YV: Yajurveda